INSTALLATION/OPERATION MANUAL

CinemaWall™

XP-50
XP-OPAL50
XP-65
XP-OPAL65

High Definition, 1080p Flat Panel Plasma Displays
with
WideVision™

RUNCO

THE WORLD'S FINEST HOME THEATER PRODUCTS™

RuncoCare™ Standard Two Year Limited Warranty

Congratulations on your purchase of a Runco® product! With proper installation, setup and care, you should enjoy many years of unparalleled video performance.

This RuncoCare Standard Limited Warranty is provided free of charge by Runco International with the purchase of a covered Runco product. The following sets forth Runco's Standard Limited Warranty applicable to all Runco projectors, processors, LCD and plasma display products, with the exception of the following models: XP-103DHD, SC-1, SC-1a and VW-100HD[1].

The following terms and conditions of the RuncoCare Standard Limited Warranty represent a contract between us, Runco International and you, the customer who has purchased a Runco product. This contract applies to purchases of covered Runco products occurring on or after September 1, 2008. Runco reserves the right to change the terms of this contract, and such changes shall apply to purchases of covered Runco products that occur on or after any future effective date.

RuncoCare Standard Features

- Two-year protection from defects in material and workmanship
- Access to 24x7 phone support
- Complimentary, second-day one-way shipping

Warranty Coverage

Runco warrants its products to be free from defects in material and workmanship during the warranty period provided below. If, in Runco's determination, a product proves to be defective in material or workmanship during the warranty period, Runco will repair the product, replace the product with a similar new or like new product, or refund a prorata share of the purchase price (calculated based on the remainder of the warranty period and the then-current MSRP[2] of a similar product), if repair or replacement of the product is determined by Runco to not be feasible.

Length of Warranty

Runco products are warranted for two (2) years from the date of shipment from Runco. Lamps are warranted six (6) months from the date of shipment or 1000 hours, whichever comes first. All other accessories, which includes, but is not limited to, cables, remotes, carrying cases, lens cap and other peripherals sold with the Runco product, are warranted for ninety (90) days from the date of shipment. Repaired product or replacement lamp is subsequently warranted for the remaining portion (if any) of the original warranty term or 90 days from the date the product was shipped to you, whichever is longer.

Eligibility

This RuncoCare Standard Limited Warranty is valid only for the first customer who purchases the covered product from an authorized Runco dealer or distributor. This warranty is not transferable. You may be required to provide proof of purchase in order to receive warranty services.

1. Runco may update this list of products excluded from this warranty from time to time at Runco's sole discretion, but updates to the list of covered products will not apply on a retroactive basis.
2. MSRP is defined as the most recent product price listed on Runco's price list.

RuncoCare Claim Procedure

In the event of a product defect, please follow the warranty claim procedure provided below:

1. The Customer is required to contact a Runco dealer or Runco Technical Support via E-mail at support@runco.com or via phone at (toll free) 800-23RUNCO (800-237-8626). If the customer is located outside North America, call +3589 4200 554 in Europe for product service.
2. Be prepared to provide the date of purchase, the place of purchase, serial number, product model number, description of the problem and troubleshooting steps already attempted.
3. Runco Technical Support staff will attempt to correct any minor issues that may be causing the problem. If Runco is unable to fix the problem to the customer's satisfaction, Runco will issue a Return Material Authorization (RMA) if it is determined that the claim was made within the coverage period of the Standard Limited Warranty.
4. The customer will need to return the defective product to the Runco repair depot location specified by the Runco technical support representative. The customer will need to properly package the defective product, consisting of the product only, and not include any accessories (e.g., cables, remotes, carrying cases, lens, lens cap and other peripherals) and return it to the Runco repair depot specified by the technical support representative. It is the customer's responsibility to properly package the hardware, include all appropriate materials, and return it to the location specified by the Runco technical support department. The customer will need to address and resolve any shipping damage claims directly with the shipping company.
5. The customer is responsible for providing a suitable box to ship the defective product to an authorized Runco repair depot. Boxes may be purchased from a Runco technical support representative.
6. The customer is responsible for paying freight charges to ship the defective product to an authorized Runco repair depot.
7. Runco will pay freight charges to return the repaired/replacement product to the customer from the Runco repair depot.
8. Once an RMA has been created, the customer may contact serviceorders@runco.com for follow-up questions or confirmation status of the claim process.

Warranty Exclusions

This RuncoCare Standard Limited Warranty does not include or is limited by the following:

1. Products not purchased from an authorized Runco dealer
2. Rental costs incurred by the customer in the event of product defect or failure
3. Any product with a defaced, modified, or removed serial number
4. Damage, deterioration, or malfunction resulting from:
   a Accident, abuse, misuse, neglect, improper ventilation, fire, water, disaster, lightning, or other acts of nature, smoke exposure (cigarette or otherwise), unauthorized product modification (including use of an unauthorized mount), or failure to follow instructions supplied with the product
   b Repair or attempted repair by anyone not authorized by Runco
   c Any damage to the product due to shipment
   d Removal or installation of the product
   e Causes external to the product, such as electric power fluctuations or failure
   f Use of supplies or parts not meeting Runco's specifications
   g Normal wear and tear
   h Expected lamp degradation and normal decrease in lamp output over a period of time or as the lamp is consumed
   i Customer caused defects, including but not limited to, scratched/defaced/altered plastics

j Failure to follow maintenance procedures as outlined in the product's user guide where a schedule is specified for regular cleaning of the product

k Opening the product and/or tampering with internal circuitry

l Products lost, stolen or discarded

m Any damage or dissatisfaction associated with latent images, "burnin," or any other damage determined by Runco to be the result of customer use patterns

n Any other cause, which does not relate to a product defect in material or workmanship

5. Removal, installation, and setup service charges are excluded from this Standard Limited warranty
6. Runco's warranty does not cover black uniformity issues or other LCD issues associated with usage outside the Runco recommended guidelines and specifications for the product
7. Second day shipment delivery time and availability may vary based on origin and destination and Runco is unable to deliver to PO Box and FPO Box addresses

Extended Service Options

Runco offers extended and expanded service plans. For information on additional product protection, please E-mail serviceorders@runco.com or call (toll free) 800-23RUNCO (800-237-8626).

Online Product Registration

Please visit http://www.runco.com/info.html to register product.

Limitation of Implied Warranties

RUNCO PROVIDES NO WARRANTIES, EXPRESS OR IMPLIED, EXCEPT THOSE EXPRESSLY PROVIDED HEREIN. RUNCO EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Exclusion of Damages

RUNCO'S MAXIMUM AGGREGATE LIABILITY HEREUNDER IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT.

1. RUNCO SHALL NOT BE LIABLE FOR DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECT IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF THE CUSTOMER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
2. RUNCO SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES ANY OTHER DAMAGES, WHETHER INCIDENTAL, INDIRECT, CONSEQUENTIAL OR OTHERWISE.
3. RUNCO SHALL NOT BE LIABLE FOR ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.

Effect of Local Law

This warranty gives you specific legal rights, and you may have other rights, which vary from locality to locality. Some localities do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

COPYRIGHT AND TRADEMARKS:

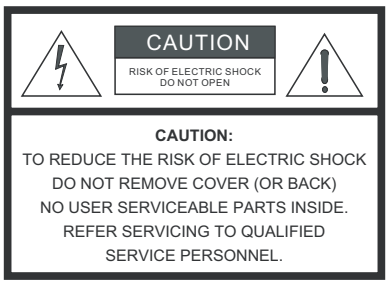
© Copyright 2009 Runco International, LLC ("Runco"). This document contains proprietary information protected by copyright, trademark and other intellectual property laws. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of Runco.

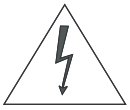
The trademarks reproduced in this Runco Owner's Manual and used on the Runco Products are either owned by Runco or are licensed by Runco. You may not reproduce or use the trademarks without the prior written consent of Runco.

Runco Products are manufactured under one or more of the following patents: US. Patent 6755540 and Other Patents Pending.

Important Safety Instructions

Thank you for your purchase of this quality Runco product! For best performance, please read this manual carefully as it is your guide through the menus and operation.





WARNING
This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for the replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by Runco.
12. Use only with a cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Compliance Information

DECLARATION OF CONFORMITY:

Manufacturer's Name: Runco International, LLC

Manufacturer's Address: 1195 NW Compton Drive, Beaverton, OR 97006-1992

hereby declares that the products Model Numbers:

XP-50, XP-OPAL50, XP-65 and XP-OPAL65

conform with the provisions of:

Council Directive 2004/108/EC on Electromagnetic Compatibility;

EN 55022 "Limits and methods of measurements of radio interference characteristics of information technology equipment" 1998;

EN 55024 "Limits and methods of measurements of immunity characteristics of information technology equipment" 1998;

Including:

- EN 61000-4-2 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 2: Electrostatic discharge immunity test"
- EN 61000-4-3 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 3: Radiated, Radio-Frequency, Electromagnetic Field Immunity Test"
- EN 61000-4-4 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 4: Electrical fast transient/burst immunity test"
- EN 61000-4-5 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 5: Surge immunity test"
- EN 61000-4-6 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 6: Conducted disturbances induced by radio-frequency fields immunity test"
- EN 61000-4-8 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 8: Conducted disturbances induced by power frequency magnetic fields immunity test"
- EN 61000-4-11 "Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 11: Voltage dips, short interruptions and voltage variations immunity tests"

And:

- EN 61000-3-2 "Electromagnetic compatibility (EMC) Part 3, Section 2: Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)" 2000;
- EN 61000-3-3 "Electromagnetic compatibility (EMC) Part 3, Section 3: Limitations of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current up to and including 16 A and not subject to conditional connection" 1995;

Council Directive 2006/95/EC and amended by M1 and C1 on Low Voltage Equipment Safety;

EN 60950 "Safety of information technology equipment, including electrical business equipment"

The Technical Construction file required by this Directive is maintained at the corporate headquarters of Planar Systems, Inc., 1195 NW Compton Drive, Beaverton, OR 97006.

Date of Declaration: September 2009

FCC PART 15:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA (ICES-003):

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IMPORTANT RECYCLE INSTRUCTIONS

Lamp(s) inside this product contain mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws.

For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG.

For lamp specific disposal information check WWW.LAMPRECYCLE.ORG.

DISPOSAL OF OLD ELECTRICAL AND ELECTRONIC EQUIPMENT (Applicable throughout the European Union and other European countries with separate collection programs)

This symbol found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources. This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Notes:

Table of Contents

RuncoCare™ Standard Two Year Limited Warranty iii

Important Safety Instructions vii

Compliance Information viii

1. Introduction 1

About This Manual 1

Target Audience 1

If You Have Comments About This Manual... 1

Textual and Graphic Conventions 1

Using This Manual 2

Description, Features and Benefits 3

Key Features and Benefits 3

Parts List 4

2. Controls and Functions 5

CinemaWall at a Glance 5

Controls and Indicators 5

Connectors 7

CinemaWall Remote Control 9

3. Installation 11

Remote Control 11

Notes on Batteries 11

Quick Setup 12

Installation Considerations 13

High-Altitude Operation 13

Mounting the CinemaWall on a Wall or Table Stand 13

Ambient Light 14

Ventilation 14

Other Considerations 15

Connections to the CinemaWall 16

Connecting Source Components to the CinemaWall 16

RS-232 Controller Connection 19

Connecting External Speakers (Optional) 19

Connecting AC Power 20

4. Operation 21
Turning on the Power 21
Changing the OSD Language 21
Setting the Day and Time 21
Setting the Computer Display Properties 22
Selecting an Input Source 23
Changing the Aspect Ratio 23
Using Picture-In-Picture (PIP) 26
Activating PIP 26
Swapping the Main and PIP Images 26
Selecting a PIP Target Screen or Input Source 27
Changing the PIP Window Position 27
Using the On-Screen Menus 27
Menu Navigation 27
PICTURE 30
POS./SIZE 35
SOUND 37
SET UP 38
OPTIONS 46
Using Digital Zoom 51
5. Maintenance and Troubleshooting 53
Cleaning 53
Cleaning the Display Panel Body and Remote Control 53
Cleaning the Screen 53
Cleaning the Vents 53
Troubleshooting Tips 54
6. Serial Communications 55
RS-232 Connection and Port Configuration 55
Serial Command Syntax 55
Examples 55
7. Specifications 63
CinemaWall Specifications 63
CinemaWall Dimensions 64
Supported Timings 66
APPENDIX A. Default Settings A-1

List of Figures

2-1. CinemaWall XP-50 and XP-OPAL50 Front-Panel Controls and Indicators 5
2-2. CinemaWall XP-65 and XP-OPAL65 Front-Panel Controls and Indicators 5
2-3. CinemaWall Rear Panel 7
2-4. CinemaWall Remote Control 9
3-1. Ventilation Requirements for Enclosure Mounting 14
3-2. HDMI Source Connections 16
3-3. RGB and Component Video Connections 17
3-4. Analog RGB Connections 18
3-5. RS-232 Control System Connection 19
3-6. External Speaker Connection 19
3-7. AC Power Connection 20
4-1. OSD Menu Structure for CinemaWall 28
4-2. Typical Gray Bar Pattern for Adjusting Picture Level (Contrast) 31
4-3. Typical PLUGE Pattern for Adjusting Brightness 32
4-4. Typical Color Bar Pattern for Adjusting Color Saturation and Tint 33
4-5. Typical Test Pattern for Adjusting Sharpness 34
7-1. CinemaWall Model XP-50 and XP-OPAL50 Dimensions (with Optional Table Stand) ... 64
7-2. CinemaWall Model XP-65 and XP-OPAL65 Dimensions (with Optional Table Stand) ... 65

Notes:

1. Introduction

1.1 About This Manual

This Owner's Manual describes how to install, set up and operate a Runco CinemaWall Flat-Panel Plasma Display Monitor (Model XP-50, XP-OPAL50, XP-65 or XP-OPAL65).

Throughout this manual, the Runco CinemaWall Flat-Panel Plasma Display Monitor is referred to as the "CinemaWall." Except where otherwise indicated, the information in this manual applies to all CinemaWall models.

➤ *Target Audience*

Runco has prepared this manual to help home theater installers and end users get the most out of the CinemaWall.

Runco has made every effort to ensure that this manual is accurate as of the date it was printed. However, because of ongoing product improvements and customer feedback, it may require updating from time to time. You can always find the latest version of this and other Runco product manuals on-line, at www.runco.com.

➤ *If You Have Comments About This Manual...*

Runco welcomes your comments about this manual. Send them to info@runco.com.

➤ *Textual and Graphic Conventions*

Text Conventions: The following conventions are used in this manual, in order to clarify the information and instructions provided:

- Remote control button identifiers are set in upper-case bold type; for example, "Press **EXIT** to return to the previous menu."
- Computer input (commands you type) and output (responses that appear on-screen) is shown in monospace (fixed-width) type; for example: "To change the aspect ratio to Letterbox, send the command `DAM:ZOOM`."
- All keys with functional names are initial-capped, set in bold type and enclosed in angle brackets. These keys are the following: **<Enter>**, **<Spacebar>**, **<Control>**, **<Esc>** and **<Tab>**.
- **<Enter>** indicates that you may press either the RETURN or ENTER key on your computer keyboard if it has both keys.

In addition to these conventions, underlining, boldface and/or italics are occasionally used to highlight important information, as in this example:

Note

*A carriage return **must** be used after each command or string.*

Graphic Conventions: These symbols appear in numerous places throughout the manual, to emphasize points that you must keep in mind to avoid problems with your equipment or injury:

Tip — *TIPS highlight time-saving short cuts and helpful guidelines for using certain features.*

Note — *NOTES emphasize text with unusual importance or special significance. They also provide supplemental information.*

Caution — *CAUTIONS alert users that a given action or omitted action can degrade performance or cause a malfunction.*

WARNING — *WARNINGS appear when a given action or omitted action can result in damage to the equipment, or possible non-fatal injury to the user.*

DANGER! — *DANGER appears when a given action can cause severe injury or death.*

1.2 Using This Manual

Use the following table to locate the specific information you need in this manual.

If you need...	... Turn to page:
Information about obtaining service	iv
General information about the CinemaWall Flat-Panel Plasma Display Monitor	3
Installation instructions	11
First-time configuration instructions	21
Advanced configuration instructions	38
Troubleshooting tips	54
Specifications for the CinemaWall Flat-Panel Plasma Display Monitor	63

1.3 Description, Features and Benefits

The CinemaWall Flat-Panel Plasma Display Monitor takes picture quality to a whole new level, boasting our brightest picture, best contrast ratio, deepest black levels and most spot-on high definition colorimetry ever! In addition, sophisticated 16-bit digital video processing, a new milestone, results in 4096 steps of graduation for seamless images completely devoid of the primitive “solarization” and “stair stepping” characteristics previously plaguing digital flat panel displays.

The CinemaWall features all of the Runco technologies you have come to expect from the World's Finest Home Theater Products. Discrete, multiple aspect ratio control includes VirtualWide™ for viewing 4:3 content in widescreen without appreciable picture degradation, as well as ISF(ccc) calibration modes to easily maintain ISF standards. The automation interface includes RS-232 control with discrete aspect ratio, input and power on/off selection.

The CinemaWall not only represents a leap forward in high definition flat-panel technology, but our engineering advances in plasma design ensure that it will enjoy a long life in any installation, with operation extending to as much as 60,000 hours. At less than 4-1/4 inches thin, the CinemaWall provides unlimited installation flexibility as well.

➤ *Key Features and Benefits*

The CinemaWall offers these key features and benefits:

- 16:9 Native Resolution: 1920 x 1080
- Models XP-OPAL50 and XP-OPAL65 feature Runco-exclusive Optical Path Alignment (OPAL) technology, which delivers extreme glare reduction and enhanced contrast for high ambient light environments
- Multiple Aspect Ratios with VirtualWide™ Mode
- Less than 4-1/4 inches thin
- High-altitude compliant to 9,000 feet
- Exceptional detail and artifact-free video enhancement
- ViVix™ video processing with 3:2 film detection circuitry

Parts List ➤ Your CinemaWall is shipped with the following items. If any items are missing or damaged, please contact your Runco dealer or Runco Customer Service at (800) 23-RUNCO.

- CinemaWall Flat-Panel Plasma Display Monitor
- AC Power Cord
- Remote Control Unit and two (2), AA-size batteries
- CinemaWall Installation/Operation Manual (this document)

Optional Accessories – XP-50 and XP-OPAL50:

- Wall Mount Kit (part number 956-0081-00)
- Table Stand (part number 956-0082-00)

Optional Accessories – XP-65 and XP-OPAL65:

- Wall Mount Kit (part number 956-0103-00)
- Table Stand (part number 956-0105-00)

2. Controls and Functions

2.1 CinemaWall at a Glance

Figure 2-1 and Figure 2-2 show the CinemaWall front-panel controls and indicators.

➤ ***Controls and Indicators***

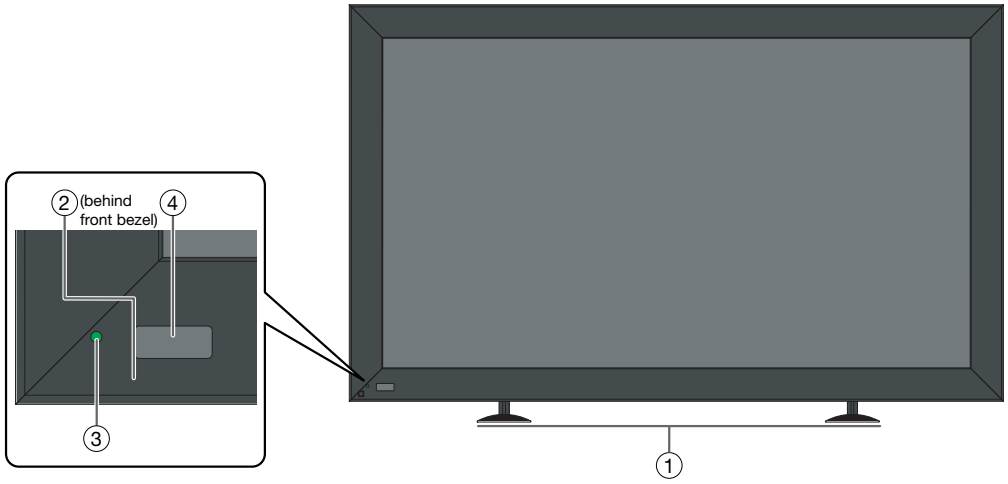


Figure 2-1. CinemaWall XP-50 and XP-OPAL50 Front-Panel Controls and Indicators

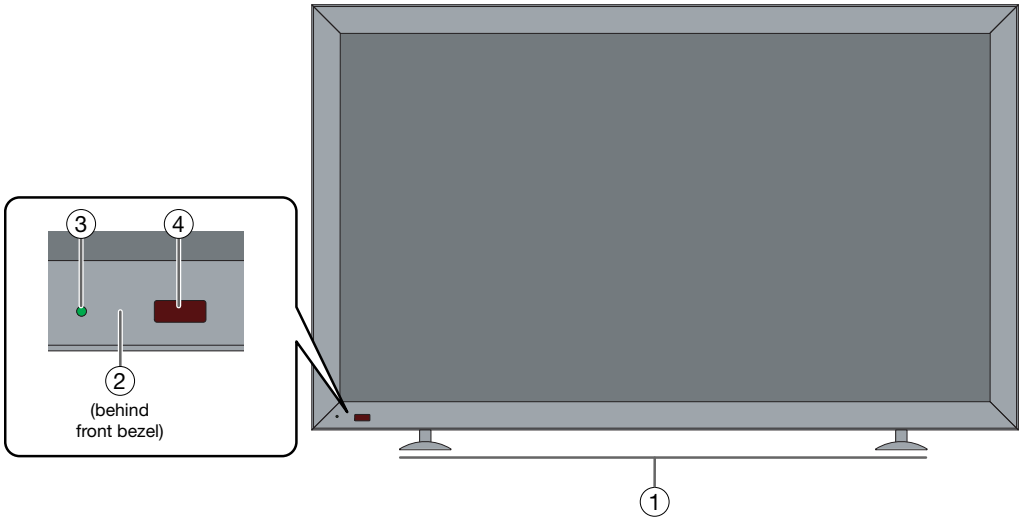


Figure 2-2. CinemaWall XP-65 and XP-OPAL65 Front-Panel Controls and Indicators

1. **DISPLAY STAND**
   Optional accessory for table-top installations.
2. **POWER BUTTON**
   Connects or disconnects the display panel from the AC power source.
3. **STANDBY/ON INDICATOR**
   - Lights solid green to indicate normal operation;
   - Flashes green to indicate that a Power-On Screen delay has been set (waiting to power up);
   - Lights orange to indicate that the PC INPUT is currently selected and the power management function is active (no signal present);
   - Lights red to indicate that the CinemaWall is in standby mode.
4. **REMOTE CONTROL SENSOR**
   Receives the signals from the remote control.

Figure 2-3 shows the rear-panel connector locations on the CinemaWall. ◄ ***Connectors***

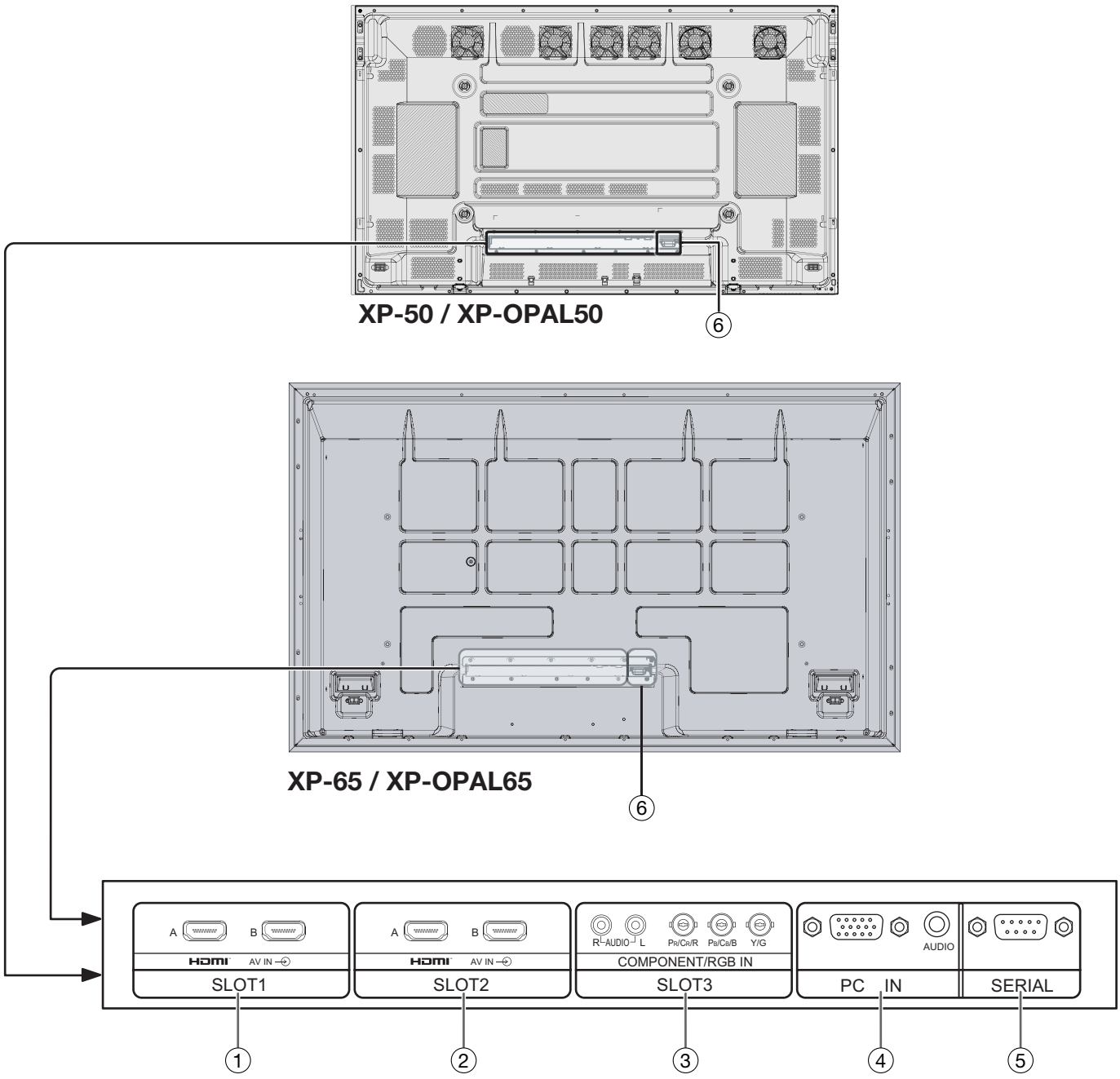


Figure 2-3. CinemaWall Rear Panel

1. **SLOT 1 (Dual HDMI input)**
   Two, HDCP-compliant digital video inputs.
2. **SLOT 2 (Dual HDMI input)**
   Two, HDCP-compliant digital video inputs.

3. **SLOT 3 (COMPONENT/RGB input)**
   Video/audio input (3 x BNC, 2 x RCA) for connecting either RGB (with sync on green) or component high-definition television signals.
4. **PC IN**
   Provides a 15-pin VGA connection and a 3.5-mm, stereo audio connection to a personal computer. The CinemaWall automatically detects the signal resolution.
5. **SERIAL**
   A male, 9-pin D-sub connector for interfacing with a PC or home theater automation/control system.
6. **POWER INPUT**
   Connect the CinemaWall to AC power here.

2.2 CinemaWall Remote Control

Figure 2-4 shows the CinemaWall remote control and describes its functionality.

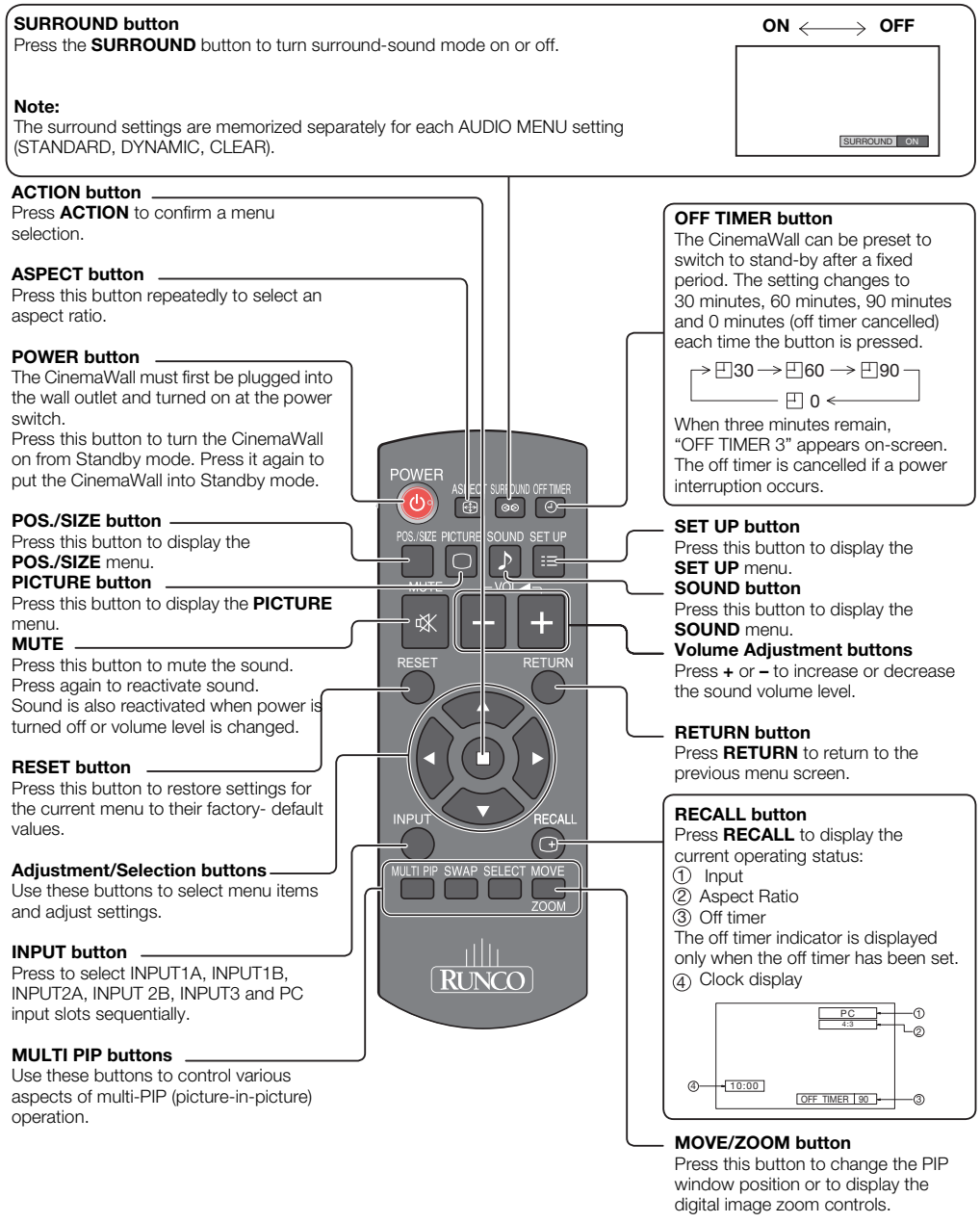

SURROUND button
Press the SURROUND button to turn surround-sound mode on or off.
Note:
The surround settings are memorized separately for each AUDIO MENU setting (STANDARD, DYNAMIC, CLEAR).
ON ⟷ OFF
SURROUND ON
ACTION button
Press ACTION to confirm a menu selection.
ASPECT button
Press this button repeatedly to select an aspect ratio.
POWER button
The CinemaWall must first be plugged into the wall outlet and turned on at the power switch.
Press this button to turn the CinemaWall on from Standby mode. Press it again to put the CinemaWall into Standby mode.
POS./SIZE button
Press this button to display the POS./SIZE menu.
PICTURE button
Press this button to display the PICTURE menu.
MUTE
Press this button to mute the sound.
Press again to reactivate sound.
Sound is also reactivated when power is turned off or volume level is changed.
RESET button
Press this button to restore settings for the current menu to their factory- default values.
Adjustment/Selection buttons
Use these buttons to select menu items and adjust settings.
INPUT button
Press to select INPUT1A, INPUT1B, INPUT2A, INPUT 2B, INPUT3 and PC input slots sequentially.
MULTI PIP buttons
Use these buttons to control various aspects of multi-PIP (picture-in-picture) operation.
OFF TIMER button
The CinemaWall can be preset to switch to stand-by after a fixed period. The setting changes to 30 minutes, 60 minutes, 90 minutes and 0 minutes (off timer cancelled) each time the button is pressed.
30 → 60 → 90
0
When three minutes remain, "OFF TIMER 3" appears on-screen. The off timer is cancelled if a power interruption occurs.
SET UP button
Press this button to display the SET UP menu.
SOUND button
Press this button to display the SOUND menu.
Volume Adjustment buttons
Press + or – to increase or decrease the sound volume level.
RETURN button
Press RETURN to return to the previous menu screen.
RECALL button
Press RECALL to display the current operating status:
① Input
② Aspect Ratio
③ Off timer
The off timer indicator is displayed only when the off timer has been set.
④ Clock display
PC
4:3
10:00
OFF TIMER 90
MOVE/ZOOM button
Press this button to change the PIP window position or to display the digital image zoom controls.
POWER
ASPECT
SURROUND
OFF TIMER
POS./SIZE
PICTURE
SOUND
SET UP
MUTE
VOL
RESET
RETURN
INPUT
RECALL
MULTI PIP
SWAP
SELECT
MOVE
ZOOM
RUNCO

Figure 2-4. CinemaWall Remote Control

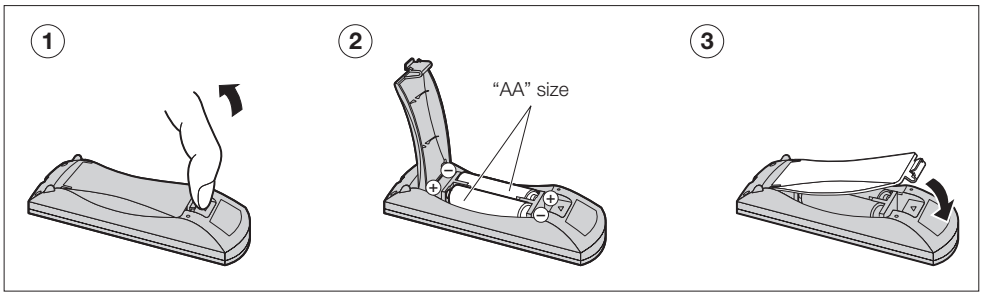
Notes:

3. Installation

3.1 Remote Control

To install batteries in the remote control:

1. Press on the tab on the battery compartment cover and lift the cover in the direction of the arrow.
2. Insert the included batteries. Ensure that the polarities correctly match the ⊕ and ⊖ markings inside the battery compartment.
3. Close the battery compartment cover and press the tab on the cover until it clicks in place.



➤ ***Notes on Batteries***

- When installing batteries, make sure that the battery polarities are correct.
- Do not mix an old battery with a new one or different types of batteries.
- If you will not use the remote control for a long time, remove the batteries to avoid damage from battery leakage.
- Do not drop the remote control or expose it to moisture or high temperature.
- The remote control may malfunction under a fluorescent lamp. If that occurs, move the plasma display away from the fluorescent lamp.
- Make sure that there is nothing obstructing the infrared beam between the remote control and the IR receiver on the plasma display.

Note *The signal from the remote control can be reflected by walls or other surfaces.*

- If the effective range of the remote control decreases, or it stops working, replace the batteries with new ones.
- Ambient conditions may possibly impede the operation of the remote control. If this happens, point the remote control at the plasma display and repeat the operation.

3.2 Quick Setup

Table 3-1 gives a quick overview of the CinemaWall installation process. The sections following this one provide detailed instructions.

Note

*Installation **must** be performed by a qualified custom video installation specialist.*

Table 3-1. Installation Overview

Step	Procedure	For Details, refer to page...
1	Mount the CinemaWall on a wall or table stand	13
2	Connect signal sources to the CinemaWall	16
3	Connect external controller to CinemaWall SERIAL port (optional)	19
4	Apply power to the CinemaWall	21
5	If using the CinemaWall with a computer, adjust computer display properties	22
6	Display calibration: adjust the following for **each** input: • Aspect ratio • Picture Level • Brightness • Color level • Tint • Sharpness • White Balance	23

3.3 Installation Considerations

Proper installation of your CinemaWall will ensure the highest possible picture quality. Whether you are installing the CinemaWall temporarily or permanently, you should take the following into account to ensure that it performs optimally.

◄ *High-Altitude Operation*

Due to the design of all plasma glass panels made by every manufacturer, and the interaction between ambient air pressure and the plasma gases contained inside of the panel, reliable operation of your plasma display cannot be assured during operation at certain high-altitude locations.

At higher elevations, each panel may react differently, depending upon the altitude, air pressure, humidity and other meteorological factors. If you are planning to use this product at a high-altitude location (above 9,000 feet), please contact Runco technical support for further information.

◄ *Mounting the CinemaWall on a Wall or Table Stand*

To install the CinemaWall, you will need either an optional table stand or wall-mounting kit.

If you do decide to wall-mount the CinemaWall, ensure that the wall-mount bracket is installed according to the instructions included with it. The wall must be capable of supporting a redundant weight factor five (5) times the weight of the display, or be reinforced.

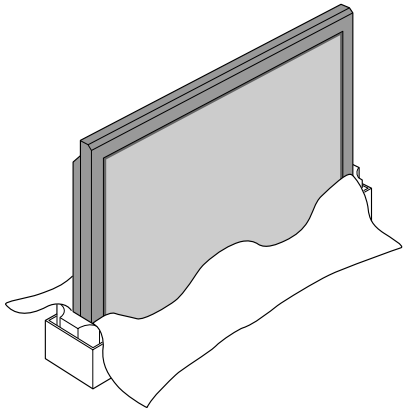
Runco recommends that this be done by a custom installation specialist.

Note

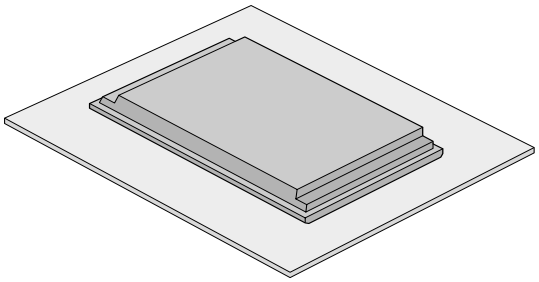
Use only a Runco-approved wall-mount kit, table stand or floor pedestal that is specifically designed for your display. Refer to ***Parts List*** *on page 4 for ordering information.*

You can attach your optional mounts or stand to the CinemaWall in either of two ways:

- While it is upright.



- As it lies flat with the screen face down. Place the protective sheet, which was wrapped around the plasma monitor when it was packaged, between the screen and your work surface to avoid scratching or otherwise damaging the screen surface.



Ambient Light ➤ In general, minimize or eliminate light sources directed at the display. Contrast ratio in your images will be noticeably reduced if light directly strikes the display, such as when a shaft of light from a window or floodlight falls on the image. Images may then appear washed out and less vibrant.

Ventilation ➤ If you are mounting the CinemaWall in an enclosure, leave sufficient space on all sides between it and surrounding objects, as shown in Figure 3-1. This allows heat to disperse, maintaining the proper operating temperature.

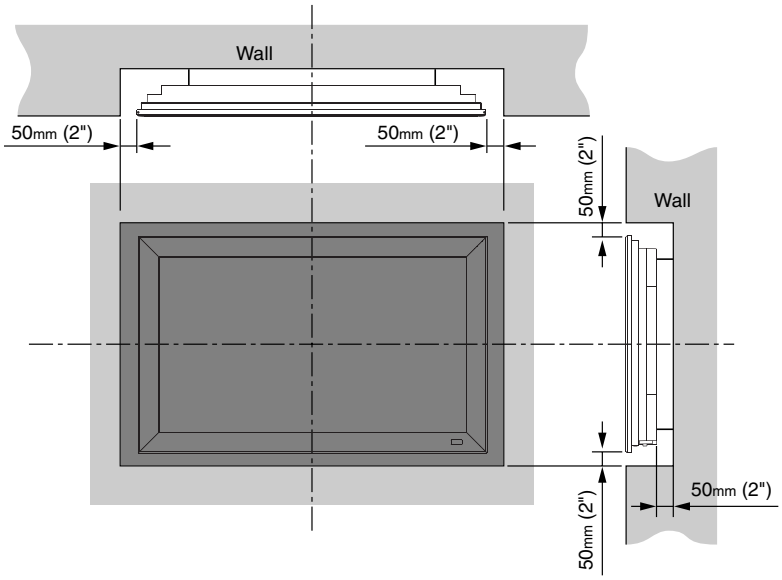


Figure 3-1. Ventilation Requirements for Enclosure Mounting

◄ *Other Considerations*

Here are some other considerations and tips that can help improve your installation, avoid damage and prolong operating life:

- Keep the ambient temperature constant and below 35°C (95°F). Keep the display away from heating and/or air conditioning vents. Changes in temperature may cause drifts in the display circuitry, which may affect performance.
- Keep the CinemaWall away from devices that radiate electromagnetic energy such as motors and transformers. Common sources of these include slide projectors, speakers, power amplifiers and elevators.
- Handle the unit carefully when installing or carrying it. Use the built-in handles; DO NOT touch or hold the screen face.
- Set the unit away from heat, excessive dust, and direct sunlight.
- Protect the inside of the unit from liquids and small metal objects. In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
- Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
- For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
- To avoid sulfurization, it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.

3.4 Connections to the CinemaWall

Proceed as follows to connect the CinemaWall to your video sources, external controller(s) – if present – and AC power.

When connecting your equipment:

- Turn off all equipment before making any connections.
- Use the correct signal cables (sold separately) for each source.
- Ensure that the cables are securely connected. Tighten the thumbscrews on connectors that have them.

Connecting Source Components to the CinemaWall ➤

Connect your video sources to the CinemaWall as shown and described in the sections that follow.

HDMI Connections: The CinemaWall has four (4) HDMI video inputs for connecting a BD/DVD player, DTV decoder or any other device with a DVI or HDMI output. Connect such devices as shown in Figure 3-2.

Tip

Use the HDMI inputs whenever possible. This ensures the highest video quality because the signal is carried in the digital domain throughout the entire signal path, from source component output into the display.

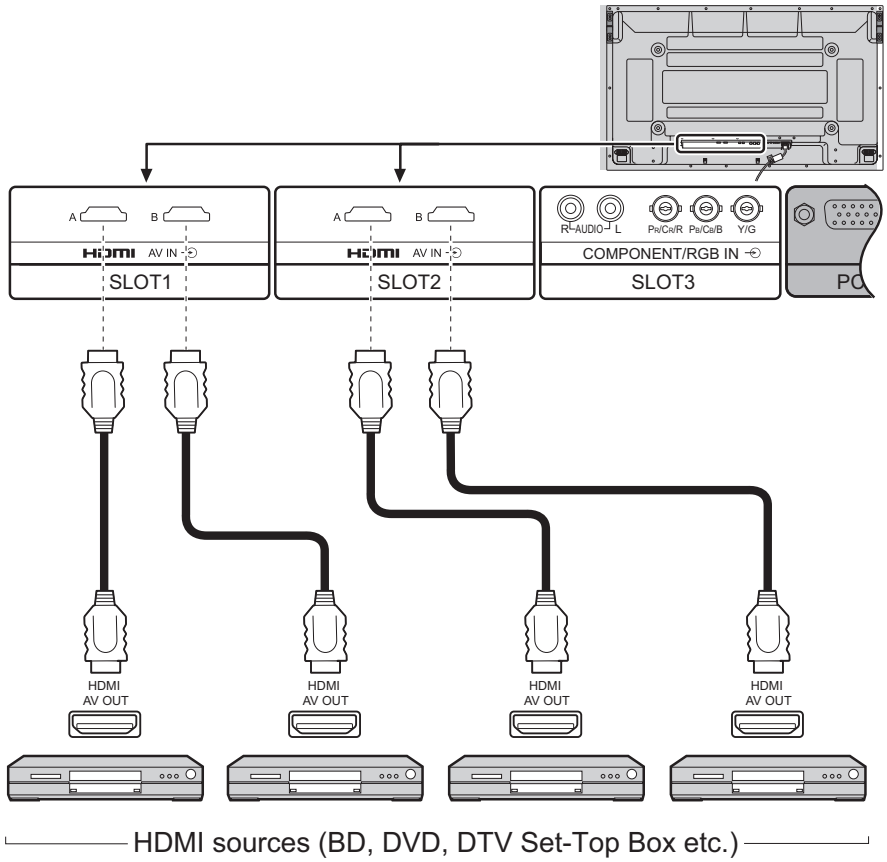


Figure 3-2. HDMI Source Connections

RGB and Component Video Connections: See Figure 3-3.

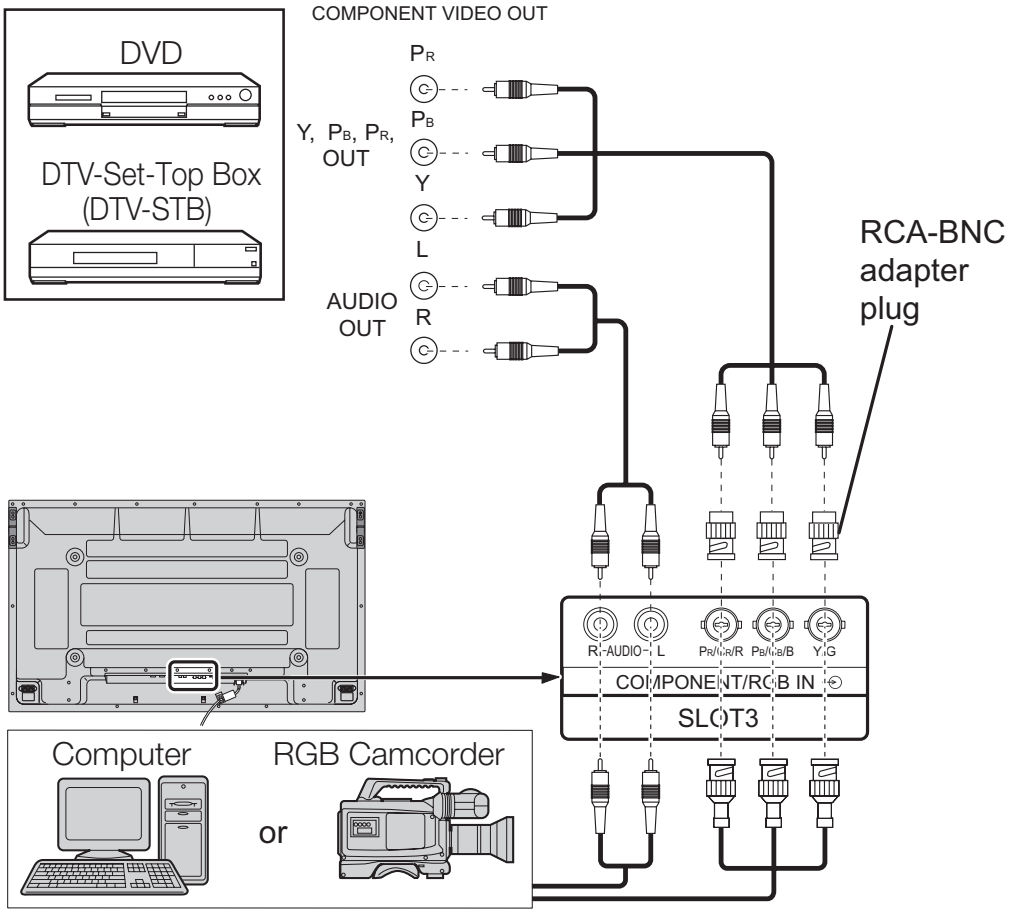


Figure 3-3. RGB and Component Video Connections

Note

1. *Change the "COMPONENT/RGB-IN SELECT" setting in the SET UP menu to "COMPONENT" or "RGB" according to the color space used by the source.*
2. *The CinemaWall supports only "sync-on-green" RGB signals on this input. If your source outputs composite sync or separate horizontal and vertical sync, connect it to the PC input.*

Analog (Computer) RGB Connections: The CinemaWall has an RGB input and a stereo audio input for connecting a personal computer; see Figure 3-4.

Note

1. *Refer to **Supported Timings** on page 66 for a list of computer signals compatible with the CinemaWall. Use with signals other than those listed may cause some functions not to work.*
2. *Some Macintosh computers may require a Macintosh video adapter. Contact your nearest authorized service center or dealer.*
3. *The PC input supports the VESA Display Data Channel (DDC 2B) standard. This standard provides "Plug and Play" capability; the display and a VESA DDC-compatible computer communicate their setting requirements, allowing for quick and easy setup.*

   In order for Plug and Play to work correctly, you must turn on the CinemaWall before you turn on the connected computer.
4. *This CinemaWall may not be able to display images from some notebook computers in simultaneous (CRT/LCD) mode. Should this occur, switch the notebook computer to "CRT only" mode. If you are unsure how to do this, refer to your notebook computer's user manual.*

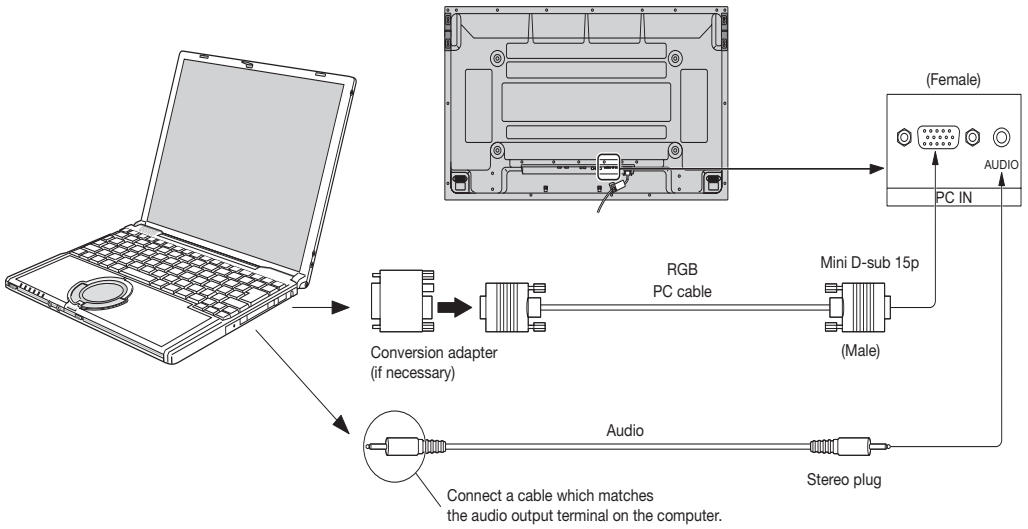
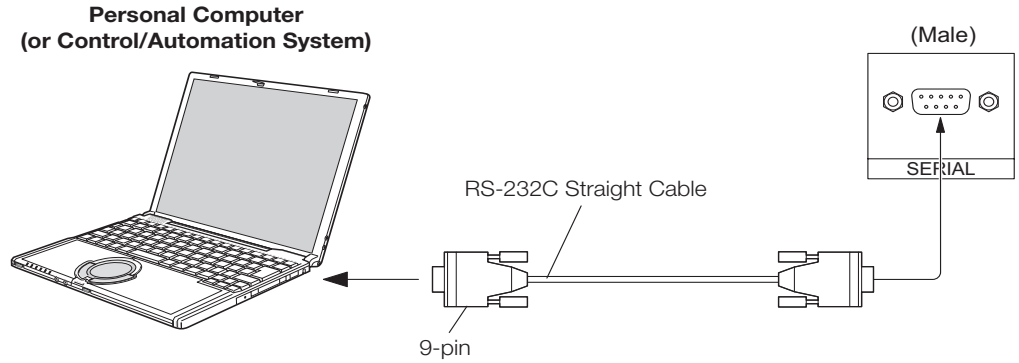


Figure 3-4. Analog RGB Connections

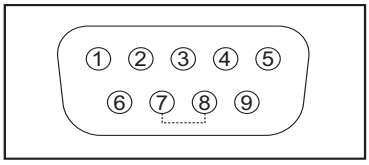
◄ *RS-232 Controller Connection*

Use a straight-through RS-232 cable with a 9-pin male connector to connect a PC or home theater control/automation system (if present) to the RS-232 port on the CinemaWall; see Figure 3-5.

For more information about using this connection, refer to ***Serial Communications*** on page 55.



Connector Pin Assignments:



2	Receive Data
3	Transmit Data
5	Ground
1, 4, 6, 9	Not Connected
7, 8	(shorted together)

Figure 3-5. RS-232 Control System Connection

◄ *Connecting External Speakers (Optional)*

Connect the ⊕ (positive) and ⊖ (negative) speaker wires to the SPEAKER-R and SPEAKER-L terminals; see Figure 3-6. **Maintain the correct polarity.** For more information, refer to the owner's manual for your speakers.

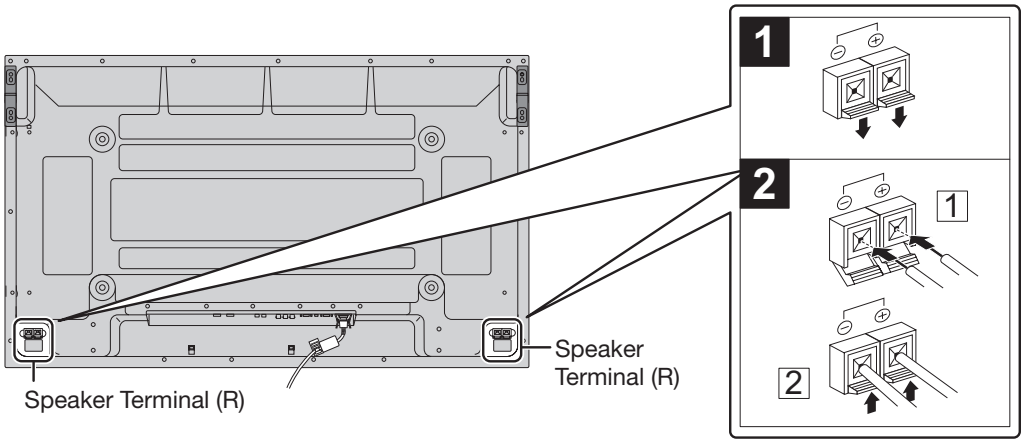
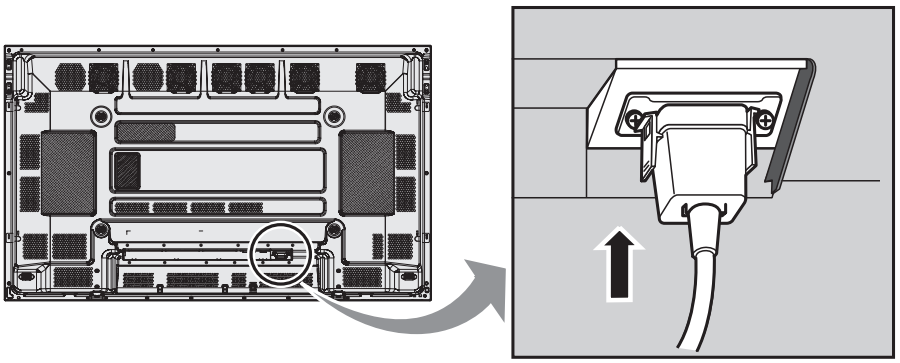


Figure 3-6. External Speaker Connection

Connecting AC Power ➤ Plug the female end of the power cord into the AC receptacle on the rear of the CinemaWall. Connect the other end to your AC power source.

XP-50 / XP-OPAL50



XP-65 / XP-OPAL65

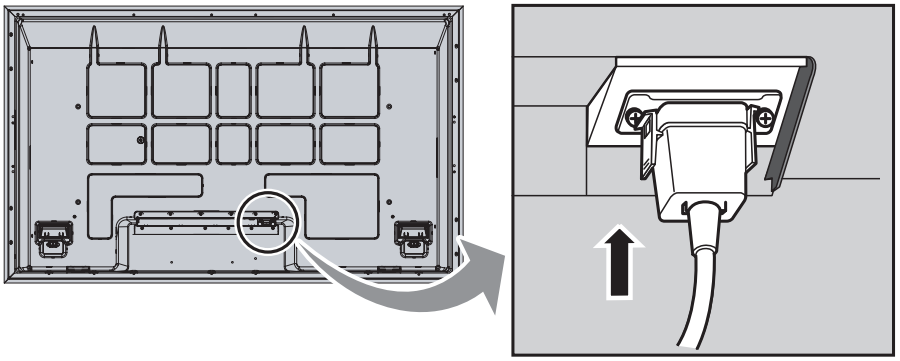
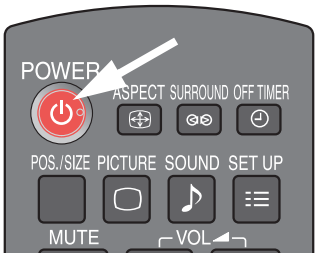


Figure 3-7. AC Power Connection

4. Operation

4.1 Turning on the Power

1. Turn on your source components.
2. Press the main power switch on the CinemaWall (see Figure 2-1 or Figure 2-2). The standby/on indicator lights green.
3. After a brief warm-up period (approximately five seconds), the CinemaWall will display an image.
4. Press the **POWER** button on the remote control to put the CinemaWall into standby mode. The power indicator lights solid red.
5. Press the **POWER** button again to return to normal operation.



4.2 Changing the OSD Language

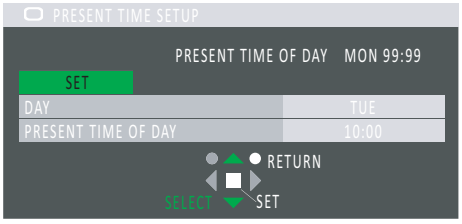
The CinemaWall OSD language is initially set to English, but can also display the menus in Russian, German, French, Italian or Spanish. To change the OSD language:

1. Press **SET UP** on the remote control unit.
2. Press ▼ repeatedly until OSD LANGUAGE is highlighted.
3. Press ◀ or ▶ to select the desired language. The change takes effect immediately.

4.3 Setting the Day and Time

You can program the CinemaWall to perform various actions, such as turning on or off, at specific times of the day and days of the week. In order to take advantage of this capability, the CinemaWall internal clock must be set correctly. To do this:

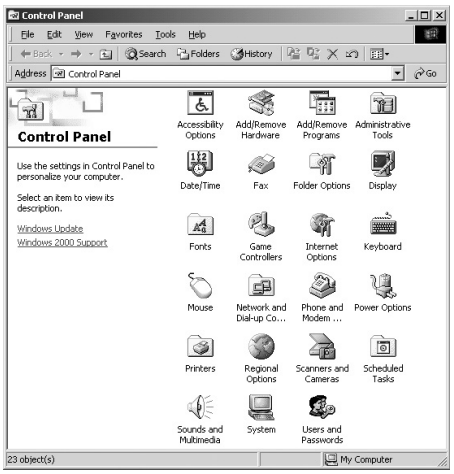
1. Press **SET UP** on the remote control unit.
2. Press ▲ or ▼ repeatedly until PRESENT TIME SETUP is highlighted.
3. Press the **ACTION** (◉) button.
4. Press ▲ or ▼ repeatedly to highlight DAY in the menu.
5. Press ◀ or ▶ to select the current day of the week.
6. Repeat Steps 4 and 5 to set the current time of day.
7. Press ▲ or ▼ repeatedly to highlight SET in the menu, then press the **ACTION** (◉) button.



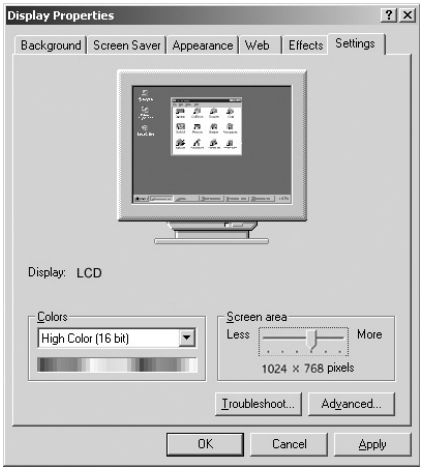
4.4 Setting the Computer Display Properties

To maximize image quality when using the CinemaWall with a personal computer, you may need to adjust the display properties of your computer's video card. To do this on a Microsoft® Windows®-based PC:

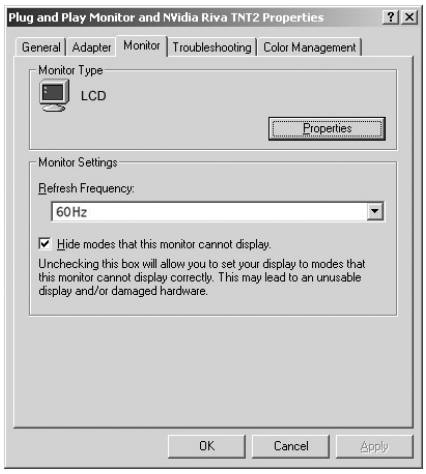
1. Choose Settings from the Windows Start Menu and click on "Control Panel."



2. Double click on the **Display** icon.
3. Click the **Settings** tab on the display dialog box.
4. Set the **Screen area** to 1024x768 pixels.



5. Click the **Advanced** button and click the **Monitor** tab on the dialog box. Set the **Refresh Frequency** to 60Hz and click **OK**.



Note

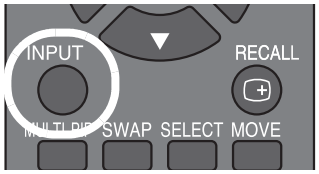
1. *The native resolution of the CinemaWall is 1920 x 1080. Other horizontal or vertical resolutions may be scaled upward or downward to fit the display.*
2. *With most computers, you can get the best picture at 1024 x 768 @ 60Hz.*

WARNING

*To prevent image retention (burn) on your display, **ALWAYS** use a screen saver and set it to the shortest possible time.*

4.5 Selecting an Input Source

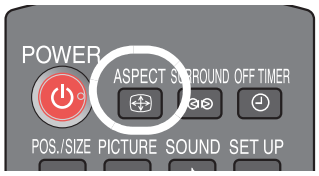
To select an input source, press the **INPUT** button on the remote control repeatedly.



4.6 Changing the Aspect Ratio

To change the aspect ratio (size and shape) of the displayed image, press the **ASPECT** (ASPECT) button repeatedly on the remote control.

Select the appropriate aspect ratio for the type of program material being viewed; refer to Table 4-1.



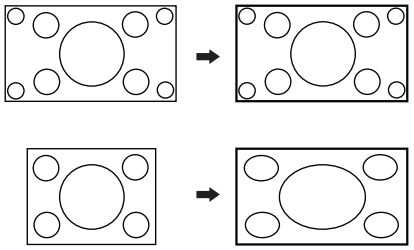
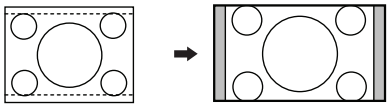
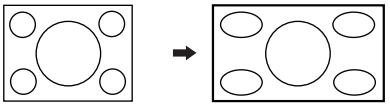
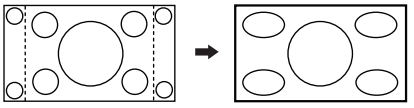
Note that some aspect ratios are unavailable and/or not useful with certain types of source material. The optimal setting depends on a number of factors, such as:

- The aspect ratio of the source material, as broadcast or encoded on the playback medium.
- The "display type" (16:9 or 4:3) and output resolution settings at the source component. Most modern DVD/BD players and set-top boxes have such controls.
- Viewer preference (original aspect ratio with "black bars," or a full-screen presentation with some distortion or cropping).

Note

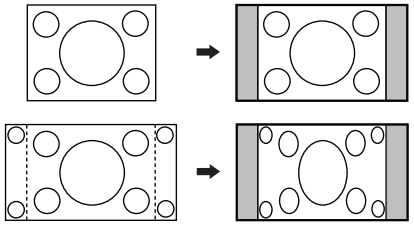
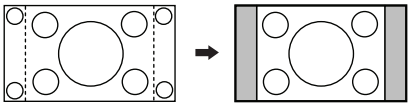
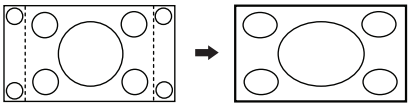
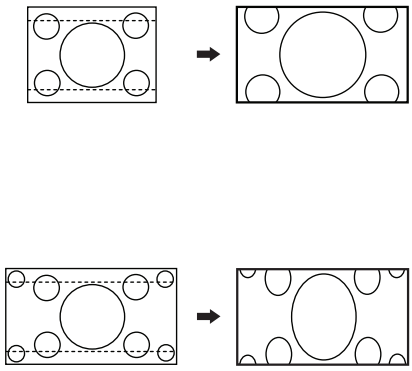
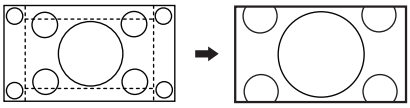
The aspect ratio selection is saved independently for each input.

Table 4-1. Aspect Ratio Settings

Aspect Ratio Setting (Note)		Input Image -> Displayed Image	Description
All Aspect = ON	**All Aspect = OFF**		
16:9	**16:9**		16:9 linearly scales the source active image horizontally and vertically to fill a 16:9 screen. With standard-definition (SD) signals, 4:3 images are stretched horizontally to fill the screen.
14:9	**–**		Letterbox pictures with a 14:9 aspect ratio are enlarged vertically and horizontally so that they fill the screen vertically and are slightly smaller than the screen horizontally. The top and bottom edges of the image are cut off. Side panels appear at the left and right edges of the screen.
VIRTUAL-WIDE1	**VIRTUAL-WIDE**		VIRTUALWIDE and VIRTUALWIDE1 scale a 4:3 image NON-linearly (more on the sides than in the center) to fit a 16:9 screen. With 16:9 images, the center area is horizontally compressed by a small amount.
VIRTUAL-WIDE2	**–**		VIRTUALWIDE2 scales a 16:9 image NON-linearly (more on the sides than in the center) to fit a 16:9 screen. The left and right edges of the image are cut off.

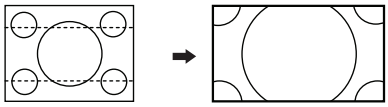
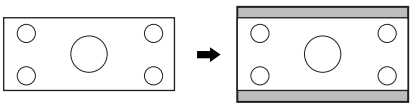
Note: *To make all of the aspect ratio selections listed here available to the viewer, set All Aspect in the OPTIONS menu (described on page 51) to* ***On****.*

Table 4-1. Aspect Ratio Settings (continued)

Aspect Ratio Setting (Note)		Input Image -> Displayed Image	Description
All Aspect = ON	All Aspect = OFF		
4:3(1)	**4:3**		4:3 (4:3(1)) linearly scales the source image horizontally and vertically to fill a 4:3 screen. Side panels are displayed at the left and right edges of the screen.
4:3(2)	**–**		4:3(2) displays a 16:9 source image in its original aspect ratio and masks the left and right sides.
FILL	**FILL**		FILL is similar to VIRTUALWIDE2 (see above), but employs a linear, horizontal stretch. ***Note:*** *This setting is not available with SD signals.*
LETTER-BOX1	**LETTER-BOX**		LETTERBOX (LETTERBOX1) scales (zooms in on) a 4:3 image linearly (by the same amount on all sides) to fill a 16:9 display, cropping the top and bottom of the image. 16:9 images are vertically scaled by a factor of approximately 1.33, but the width is unchanged.
LETTER-BOX2	**–**		LETTERBOX2 scales (zooms in on) a 16:9 image linearly (by the same amount on all sides) to fill a 16:9 display, cropping the image on all sides.

Note: *To make all of the aspect ratio selections listed here available to the viewer, set All Aspect in the OPTIONS menu (described on page 51) to* ***On****.*

Table 4-1. Aspect Ratio Settings (continued)

Aspect Ratio Setting (Note)		Input Image -> Displayed Image	Description
All Aspect = ON	**All Aspect = OFF**		
LETTER-BOX3	**–**		LETTERBOX2 scales (zooms in on) a 2.35:1 image linearly (by the same amount on all sides) to fill a 16:9 display, cropping the image on all sides.
CINEMA	**CINEMA**		Select CINEMA to view 2.35:1 source material in its native aspect ratio. CINEMA masks the upper and lower portions of the screen to create a viewable area with a 2.35:1 aspect ratio. The geometry of the active image area is unchanged.

Note: *To make all of the aspect ratio selections listed here available to the viewer, set All Aspect in the OPTIONS menu (described on page 51) to* ***On****.*

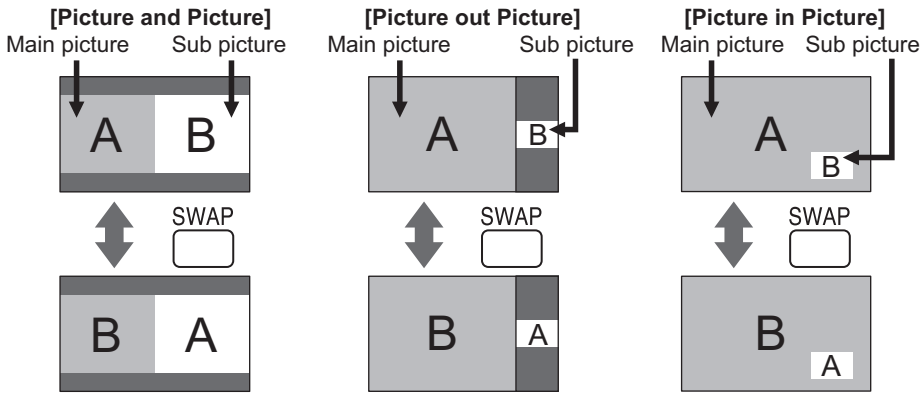
4.7 Using Picture-In-Picture (PIP)

Use PIP to display an image from two sources at the same time in a variety of ways.

For more information on setting up PIP and how it works, refer to ***MULTI PIP SETUP*** on page 43.

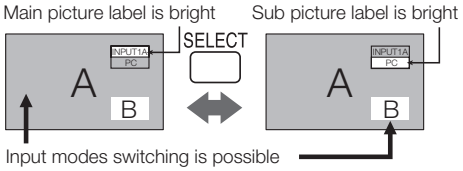
Activating PIP ➤ To activate PIP, press the **MULTI PIP** (MULTI PIP) remote control button.

Swapping the Main and PIP Images ➤ Press **SWAP** (SWAP) to replace the main image with the secondary sub-image and vice versa.



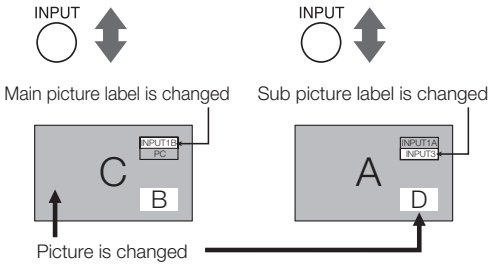
Press **SELECT** (SELECT) to choose a target screen (main or sub) for PIP operations.

The audio signal associated with the target screen is heard through the speakers.

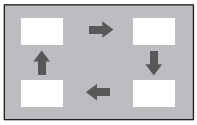


➤ ***Selecting a PIP Target Screen or Input Source***

Press **INPUT** (INPUT) to select an input to display on the target screen (main or sub).



To change the PIP window position, press **MOVE/ZOOM** (MOVE) repeatedly until the window is in the desired position.

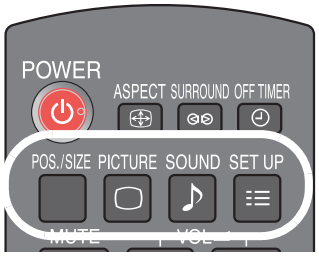


➤ ***Changing the PIP Window Position***

4.8 Using the On-Screen Menus

The CinemaWall On-Screen Display (OSD) controls are grouped into five (5) menus: **POS./SIZE**, **PICTURE**, **SOUND**, **SET UP** and **OPTIONS**.

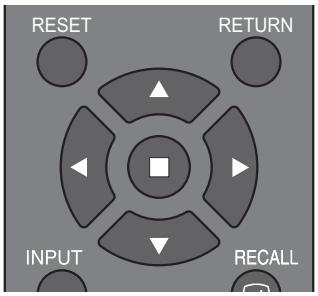
The **PICTURE**, **ADVANCED SETTINGS** (in the **PICTURE** menu), **SET UP** and **OPTIONS** menus consist of multiple "pages," to limit the amount of space those menus occupy on the screen.



To access the **POS./SIZE**, **PICTURE**, **SOUND** or **SET UP** menus, press the remote control button corresponding to that menu. Press that same button again to hide the menu.

To access the **OPTIONS** menu:

1. Press **SET UP**.
2. Press ▲ or ▼ repeatedly until OSD LANGUAGE is highlighted.
3. Press and hold the **SURROUND** (SURROUND) button until the page 1 of the **OPTIONS** menu appears (approximately four seconds).



➤ ***Menu Navigation***

- Press ▲ or ▼ to highlight a menu item.
- When navigating a multi-page menu (**PICTURE**, **SET UP** or **OPTIONS**), the ▼ button takes you from the bottom of one menu page to the top of the next one. Likewise, the ▲ button takes you from the top of one menu page to the bottom of the previous one.
- Press ◀ or ▶ to change the selected setting.
- Some menu items lead to sub-menus containing more options. Press the **ACTION** (ACTION) button to access a sub-menu. To return to the previous menu, press **RETURN**.

- The OSD menu closes after 60 seconds of inactivity.

The CinemaWall OSD menus are arranged hierarchically, as shown in Figure 4-1. Depending on the selected input source and signal characteristics, some menu options may not be available.

POS./SIZE	H-POS	-124, -123 ... 0 ... 123, 124	
	H-SIZE		
	V-POS		
	V-SIZE	-62, -61 ... 0 ... 61, 62	
	DOT CLOCK (INPUT3/PC INPUT only)	-32, -31 ... 0 ... 31, 32	
	CLOCK PHASE (INPUT3/PC INPUT only)	-16, -15 ... 0 ... 15, 16	
	1:1 PIXEL MODE (1080i/1080p signals only)	ON / OFF	
PICTURE	PICTURE MENU	STANDARD, ISF DAY, ISF NIGHT or MONITOR	
	PICTURE	-30, -29 ... 0 ...29, 30	
	BRIGHTNESS		
	COLOR		
	TINT		
	SHARPNESS	-15, -14 ... 0 ... 14, 15	
	COLOR TEMP	NORMAL, COOL or WARM	
	COLOR MANAGEMENT	ON/OFF	
	ADVANCED SETTINGS (OFF)	--	
	ADVANCED SETTINGS (ON)	BLACK EXTENSION	0, 1, 2 ... 8
		INPUT LEVEL	-32, -31, -30 ... 0 ... 30, 31, 32
		GAMMA	2.0, 2.2, 2.5 or S-CURVE
		AGC	OFF/ON
		R/G/B GAIN	-30, -29 ... 0 ...29, 30
		R/G/B OFFSET	
SOUND	AUDIO MENU	STANDARD, DYNAMIC or CLEAR	
	BASS	-15, -14, -13 ... 0 ... 13, 14, 15	
	MID		
	TREBLE		
	BALANCE	-30, -29, 28 ... 0 ... 28, 29, 30	
	SURROUND	ON/OFF	
	AUDIO OUT (PIP)	MAIN or SUB	
SET UP (1/2)	SIGNAL	SYNC (PC INPUT only)	AUTO, ON G or VBS
		3:2 PULLDOWN	OFF/ON
		XGA MODE (INPUT3/PC INPUT only)	1024x768, 1280x768 or 1366x768
		NOISE REDUCTION	OFF, MIN, MID or MAX
		NOISE REDUCTION - ADVANCED	VIDEO NR (OFF, MIN, MID or MAX)
			BLOCK NR (OFF, MIN, MID or MAX)
			MOSQUITO NR (OFF, MIN, MID or MAX)
	SCREENSAVER	START	
		FUNCTION	SCROLLING BAR ONLY, OVERLAY SCROLLING BAR, WHITE SCREEN or NEGATIVE IMAGE
		MODE	ON, OFF, INTERVAL or TIME OF DAY
		START TIME/SHOW DURATION	0:00 ... 23:59 / 0:00, 0:15, 0:30 ... 23:45
		FINISH TIME/SAVER DURATION	0:00 ... 23:59 / 0:00, 0:15, 0:30 ... 23:45
		SIDE BAR ADJUST	OFF, DARK, MID or BRIGHT
		WOBBLING	OFF, ON1 or ON2
		PEAK LIMIT	OFF/ON
	COMPONENT/RGB IN SELECT	COMPONENT or RGB	
	INPUT LABEL	INPUT[n], VIDEO[n], COMPONENT[n], RGB[n], DIGITAL [1A/1B/2A/2B], PC[n], DVD[n], CATV[n], VCR[n], STB[n]	
	POWER SAVE	OFF/ON	
	STANDBY SAVE		
	POWER MANAGEMENT		
	AUTO POWER OFF		
	OSD LANGUAGE	ENGLISH (US), Русский (RUSSIAN), Deutsch (GERMAN), Français, (FRENCH), italiano (ITALIAN) or Español (SPANISH)	

Figure 4-1. OSD Menu Structure for CinemaWall

SET UP (2/2)	MULTI DISPLAY SETUP (**Note:** Must set MULTI PIP SETUP -> DISPLAY MODE to "-" (normal)	MULTI DISPLAY SETUP	ON/OFF
		HORIZONTAL SCALE	x2, x3, x4 or x5
		VERTICAL SCALE	x1, x2, x3, x4 or x5
		SEAM HIDES VIDEO	ON/OFF
		LOCATION	A1, A2, A3, A4, A5, B1, B2 ... E3, E4, E5
		AI SYNCHRONIZATION	ON/OFF
	MULTI PIP SETUP	MULTI PIP	PIP, ADVANCED PIP, BLEND PIP
		DISPLAY MODE	**MULTI PIP = PIP:** - (normal), P IN P, P AND P, P OUT P **MULTI PIP = ADVANCED PIP:** - (normal) or 1-8 **MULTI PIP = BLEND PIP:** - (normal), P IN P, FULL
		TRANSPARENCY	ON/OFF
		TRANSPARENCY LEVEL	0%, 5%, 10%, 15% ... 95%, 100%
		INSERT	ON/OFF
		INSERT LEVEL	1%, 2%, 3% ... 10%
	PORTRAIT SETUP (**Note:** Must set MULTI PIP SETUP -> DISPLAY MODE to "-" (normal)	PORTRAIT SETUP	ON/OFF
		SEAM HIDES VIDEO	ON/OFF
		VIEWING AREA	4:3 (SD sources only) or 16:9
		LOCATION	1, 2, or 3
		AI SYNCHRONIZATION	ON/OFF
	SET UP TIMER	POWER ON FUNCTION	ON/OFF
		POWER ON TIME	0:00, 0:01, 0:02... 23:58, 23:59
		POWER OFF FUNCTION	ON/OFF
		POWER OFF TIME	0:00, 0:01, 0:02... 23:58, 23:59
	PRESENT TIME SETUP	DAY	MON, TUE, WED, THU, FRI, SAT or SUN
		PRESENT TIME OF DAY	0:00, 0:01, 0:02... 23:58, 23:59
OPTIONS	Weekly Command Timer	Function	On/Off
		Monday, Tuesday ... Sunday	---, Program1, Program2, Program3 ... Program7
		Program Edit	Program Select (1, 2 ... 7)
			Command Select (01, 02, 03 ... 64)
			Time (--:-- or 0:00 ... 23:59)
			Command Assign (refer to Table 6-1)
	Onscreen Display	On/Off	
	Initial INPUT	Off, PC, INPUT1A, INPUT1B, INPUT2A, INPUT2B or INPUT3	
	Initial VOL level	On (0, 1, 2 ... 63) or Off	
	Maximum VOL level		
	INPUT lock	Off, PC, INPUT1A, INPUT1B, INPUT2A, INPUT2B or INPUT3	
	Button lock	Off, MENU&ENTER, On (n/a)	
	Remocon User level	Off, User1, User2 or User3	
	Off-timer function	Enable/Disable	
	Initial Power Mode	Normal, On or Standby	
	ID select	0, 1, 2, 3 ... 99, 100	
	Remote ID	On/Off	
	Serial ID		
	Display size		
	Studio W/B		
	Studio Gain		
	Slot power	Off, Auto or On	
	Power On Screen Delay	Off or 1 ... 30 seconds	
	Clock Display	On/Off	
	All Aspect		
	Rotate		
	Serial Slot Select	Slot1, Slot2 or Slot3	

Figure 4-1. OSD Menu Structure for CinemaWall (continued)

PICTURE ➤ Use the controls in the PICTURE menu to calibrate your CinemaWall for optimum picture quality.

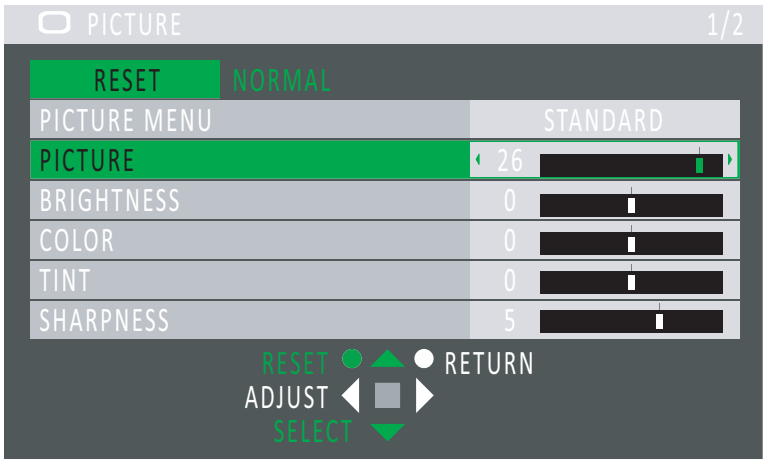
The CinemaWall has been designed to incorporate setup and calibration standards established by the Imaging Science Foundation (ISF). The ISF has developed carefully crafted, industry-recognized standards for optimal video performance and has implemented a training program for technicians and installers to use these standards to obtain optimal picture quality from Runco video display devices. Accordingly, Runco recommends that setup and calibration be performed by an ISF-certified installation technician.

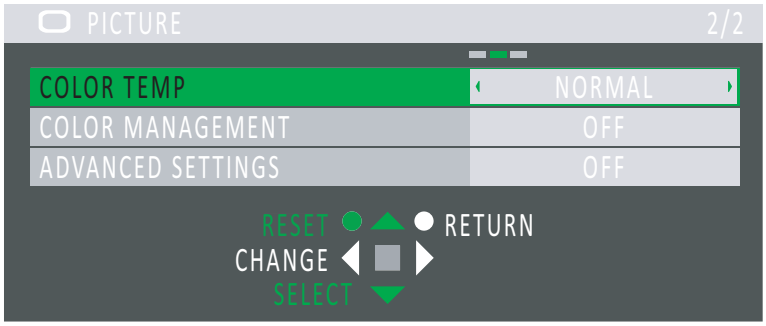
All signal types require separate processing. Therefore, you need to calibrate each input separately.

Although it may be possible to obtain satisfactory picture quality using the naked eye and regular program material, Runco recommends using the following calibration tools for best results:

- External test pattern source – Ovation Multimedia, Video Essentials or AVIA test DVD (or equivalent).
- A blue filter (provided with many test DVDs), for color level and tint adjustments.

Connect your test pattern source to the input that you are calibrating and proceed as follows. **Perform the adjustments in the order listed here.**





PICTURE MENU: The CinemaWall provides four picture memories per input for storing and recalling image quality settings. To store settings in a picture memory, highlight PICTURE MENU in the PICTURE menu and select STANDARD, ISF DAY, ISF NIGHT or MONITOR. The CinemaWall "remembers" any adjustments you make when you switch to a different picture memory, then switch back.

Tip

Select the MONITOR mode to disable the CinemaWall's "brightness variation" function, which automatically controls the display brightness according to the average brightness level and peak brightness level of the input signal. MONITOR mode is useful to content creators and viewers who prefer to see content as it was created, without any brightness enhancement.

PICTURE: On your external test pattern source, select a stepped, gray-bar pattern like the one shown in Figure 4-2.

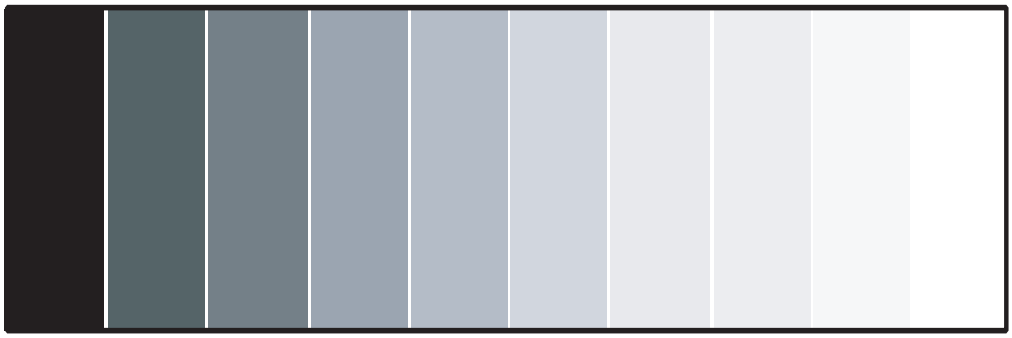


Figure 4-2. Typical Gray Bar Pattern for Adjusting Picture Level (Contrast)

Select PICTURE from the PICTURE menu. Using the left- and right-arrow (◀ ▶) buttons, adjust the Picture level (contrast) to a point just below which the white rectangle starts to increase in size.

Note

This control is not available when PICTURE MENU is set to MONITOR.

BRIGHTNESS: On your external test pattern source, select a PLUGE pattern. (PLUGE is an acronym for “Picture Line-Up Generation Equipment.”) Figure 4-3 shows a typical PLUGE pattern.

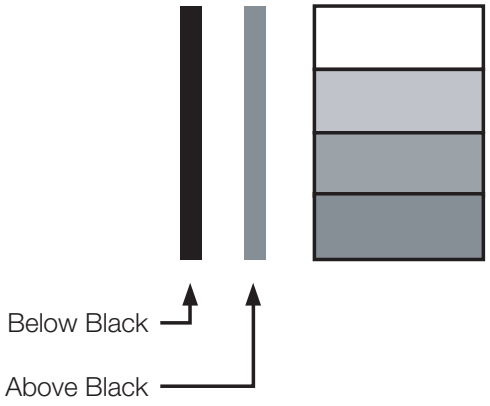


Figure 4-3. Typical PLUGE Pattern for Adjusting Brightness

PLUGE patterns vary but generally consist of some combination of black, white and gray areas against a black background. The example above includes two vertical bars and four shaded boxes.

Select BRIGHTNESS from the PICTURE menu. Using the left- and right-arrow (◀ ▶) buttons, adjust the brightness so that:

- The darkest black bars disappear into the background.
- The dark gray areas are barely visible.
- The lighter gray areas are clearly visible.
- The white areas are a comfortable level of true white.
- The image contains only black, gray and white (no color).

Note *Brightness and Picture level controls are interactive. A change to one may require a subtle change to the other in order to achieve the optimum setting.*

COLOR: On your external test pattern source, select a color bar pattern like the one shown in Figure 4-4.

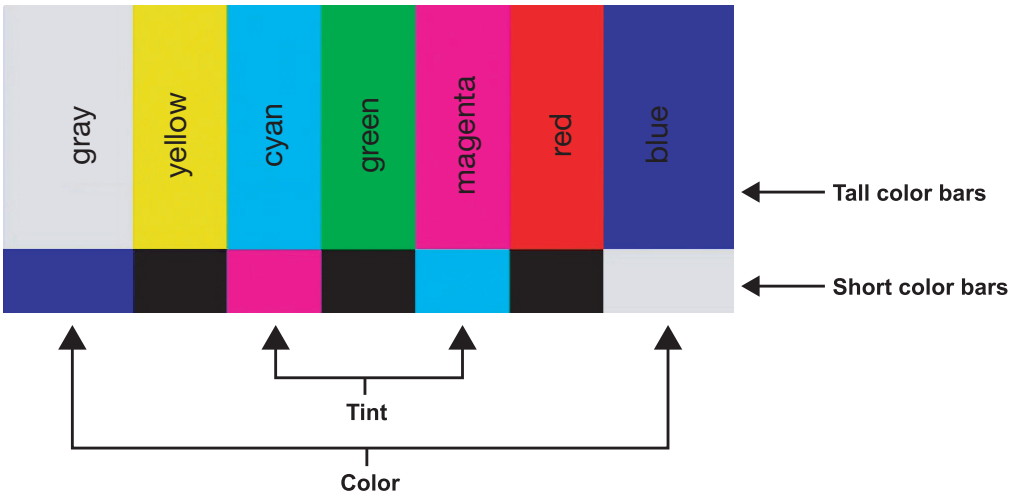
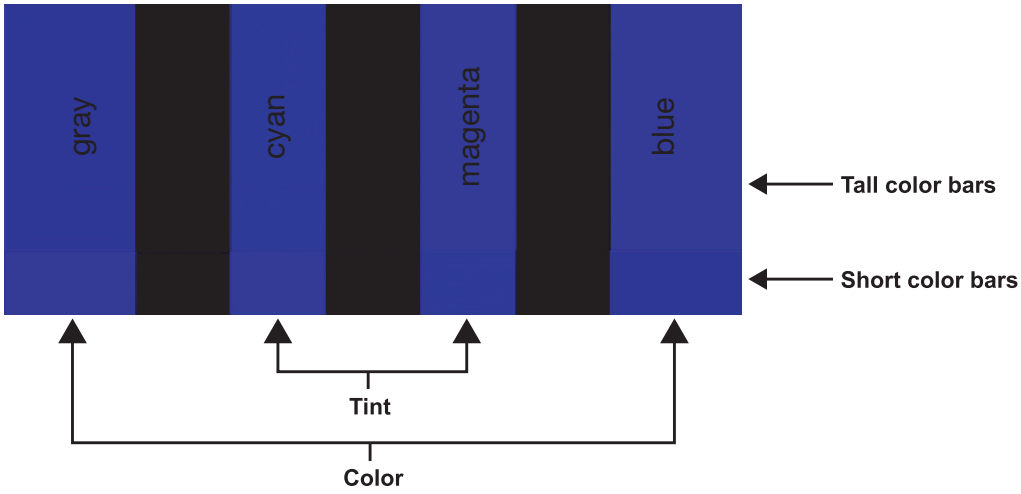


Figure 4-4. Typical Color Bar Pattern for Adjusting Color Saturation and Tint

Select COLOR from the PICTURE menu. While looking at the color bar pattern through a blue filter, adjust the color saturation level until the outermost (gray and blue) color bars appear to be a single shade of blue:



TINT: Tint or “hue” is essentially the ratio of red to green in the color portion of the image. When tint is decreased, the image appears redder; when it is increased the image appears greener. To set the tint, select TINT from the PICTURE menu. While looking at the color bar pattern through a blue filter, adjust the tint level until the cyan and magenta color bars (on either side of the green bar) appear to be a single shade of blue.

Note

Like the brightness and contrast controls, the color and tint controls are interactive. A change to one may require a subtle change to the other in order to achieve the optimum setting.

SHARPNESS: "Sharpness" is the amount of high-frequency detail in the image. To adjust sharpness, select SHARPNESS from the PICTURE menu. On your external test pattern source, select a pattern like the one shown in Figure 4-5. Adjust as needed, looking for white edges around the transitions from black to gray and different sized lines in the "sweep" patterns at the top and bottom. Lower the sharpness setting to eliminate them.

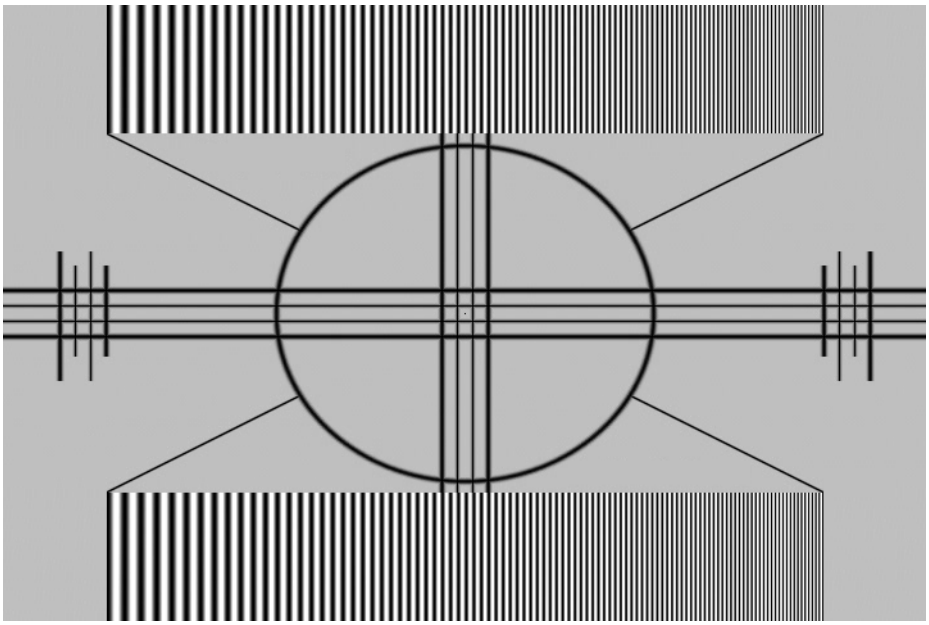


Figure 4-5. Typical Test Pattern for Adjusting Sharpness

COLOR TEMP: To choose a color temperature setting, select COLOR TEMP from the PICTURE menu. (Color temperature defines the "color of gray.") The choices are NORMAL, COOL or WARM.

For most situations, the appropriate setting is NORMAL. COOL produces a "bluer" picture; WARM a "warmer" picture with more pronounced red and orange hues.

COLOR MANAGEMENT: Select COLOR MANAGEMENT from the PICTURE menu and set it to ON to have the CinemaWall automatically manage color balance. For more direct control of color balance, set it to OFF.

ADVANCED SETTINGS: Set ADVANCED SETTINGS to ON, then press ▼ to perform the following picture quality adjustments:

- **BLACK EXTENSION:** Use the BLACK EXTENSION control to adjust the black level "floor" (lower limit). If blacks appear too gray, set BLACK EXTENSION to a higher value.
- **INPUT LEVEL:** Use the INPUT LEVEL control to adjust the overall, apparent brightness of the displayed image. Its effect is similar to a backlight control on an LCD. If parts of the image are extremely bright and hard to see, lower the INPUT LEVEL to compensate.

- **GAMMA:** The default gamma setting (**2.2**) is correct for almost all signals and conditions. If excess ambient light washes out the image and it becomes difficult or impossible to see details in dark areas, lower the gamma setting to compensate. This will improve contrast while maintaining good details for blacks. Conversely, if the image is washed out and unnatural, with excessive detail in black areas, increase the setting. Again, good gamma improves contrast while maintaining good details for blacks and whites.
- **AGC (Automatic Gain Control):** AGC increases the brightness of dark signals automatically. To enable AGC, set it to **ON**. To disable it, set it to **OFF**.
- **R/G/B GAIN:** Use the Gain controls in the ADVANCED SETTINGS sub-menu to correct color imbalances in the bright areas of the image. A good way to do this is to use a test pattern consisting mostly of solid white areas, such as an 80 IRE “window” pattern. If the white areas contain traces of red or blue, decrease the Gain for that color.
- **R/G/B OFFSET:** Use the Offset controls in the ADVANCED SETTINGS sub-menu to correct color imbalances in the dark areas of the image. A good way to do this is to use a test pattern consisting mostly of dark gray areas, such as a 30 IRE “window” pattern. If the gray areas contain traces of red or blue, decrease the Offset for that color.

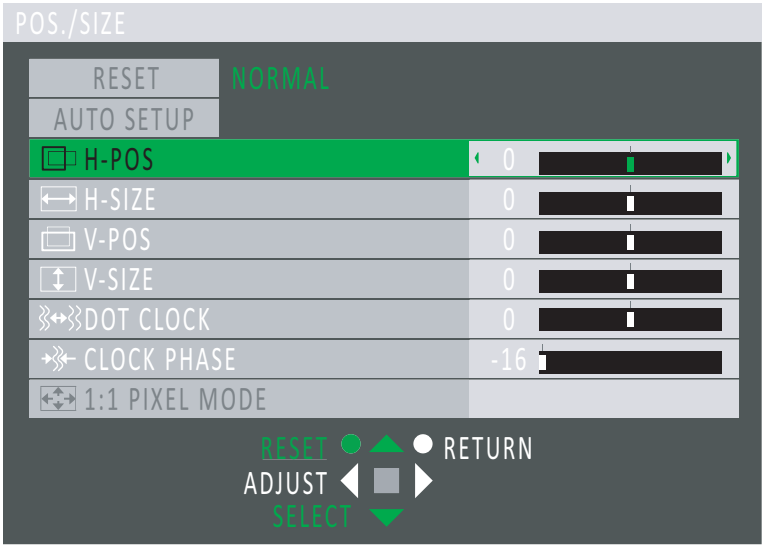
◄ *POS./SIZE*

Use the controls in the POS./SIZE menu to fine-tune the displayed image position and size.

To return all POS./SIZE menu settings to their factory-default values, press **RESET** on the remote control unit with the menu on-screen. Or, press ▲ or ▼ repeatedly to highlight RESET in the menu, then press the **ACTION** ( ) button.

Note

The CinemaWall memorizes position and size settings separately for different input signal formats. Adjustments for component signals are memorized for 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 1125 (1080) / 60i · 50i · 60p · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i, 750 (720) / 60p · 50p each. RGB/PC/Digital signals are memorized for each frequency.



AUTO SETUP (PC INPUT only): To automatically adjust the position, size, clock and phase of incoming computer signals for optimum picture quality, press ▲ or ▼ repeatedly to highlight AUTO SETUP in the menu, then press the **ACTION** ( ) button.

H-POS/V-POS: Select H-POS or V-POS and use the ◀ or ▶ buttons to fine-tune the displayed image position.

H-SIZE/V-SIZE: Select H-SIZE or V-SIZE and use the ◀ or ▶ buttons to fine-tune the display device aspect ratio.

Note

You cannot adjust H-SIZE or V-SIZE when Display size (in the OPTIONS menu; refer to page 50) is set to On.

DOT CLOCK (INPUT3/PC INPUT only): Use this control to adjust the frequency of the pixel sampling clock, indicated by the number of incoming pixels per line, so that all pixels generated by a particular source are sampled.

Steady flickering or several soft vertical stripes or bands across the entire image indicates poor pixel tracking. Proper pixel tracking helps ensure that the image quality is consistent across the screen, that aspect ratio is maintained and that pixel phase (see below) can be optimized.

Note

DOT CLOCK cannot be adjusted if the incoming signal pixel clock frequency is 108 MHz or greater.

CLOCK PHASE (INPUT3/PC INPUT only): This control adjusts the phase of the pixel sampling clock relative to the incoming signal. Adjust the phase when an RGB or Component image still shows shimmer or “noise” after DOT CLOCK has been optimized.

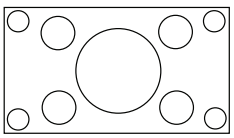
Tip

Adjust the Phase after adjusting DOT CLOCK (see above). If some shimmer from a video or HDTV source persists, use the NOISE REDUCTION controls (described on page 39) to remove high-frequency noise from the signal.

For best results, use a good test pattern such as a smooth gray consisting of a clear pattern of black and white pixels, or a similar “half on, half off” graphic image. Adjust the slidebar until the image stabilizes and each pixel is clearly defined. You may notice that you can stabilize the image at more than one point. Use either setting in such cases.

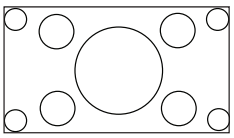
1:1 PIXEL MODE (1080i/1080p signals only): Select 1:1 PIXEL MODE from the POS./SIZE menu and set it to **On** to have the CinemaWall map a 1920x1080 input signal to 1080p HD panel pixels, displaying 100% of the original content. By skipping the scaling process, the CinemaWall can produce high-definition images in their original, 1:1 pixel form.

1:1 PIXEL MODE = ON



When **1:1 PIXEL MODE** mode is **Off**, the picture source is scaled for over-scanning and 97% of the original is displayed. Use this setting to minimize or eliminate image flicker.

1:1 PIXEL MODE = OFF



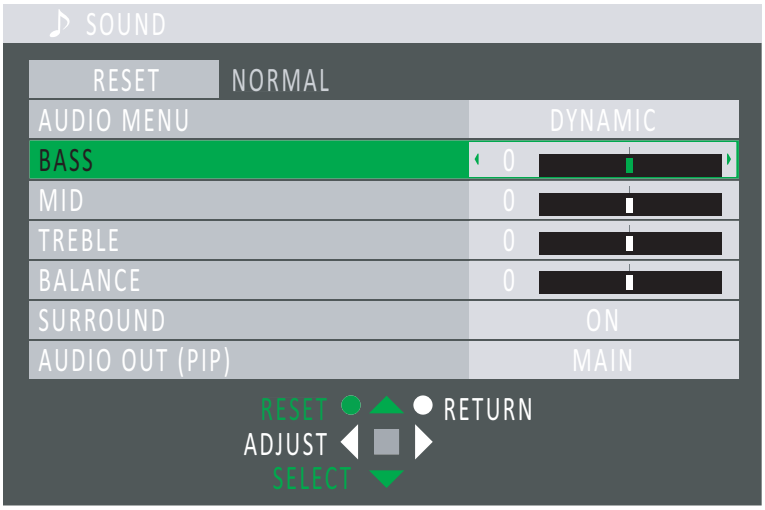
Note

1. *1:1 PIXEL MODE is available only when the input signal is 1080i or 1080p and the Aspect Ratio is set to 16:9 (refer to page 23).*
2. *You cannot adjust H-SIZE, V-SIZE or DOT CLOCK when 1:1 PIXEL MODE is enabled.*

◄ *SOUND*

Use the controls in the SOUND menu to adjust the CinemaWall audio settings.

To return all SOUND menu settings to their factory-default values, press **RESET** on the remote control unit with the menu on-screen. Or, press ▲ or ▼ repeatedly to highlight RESET in the menu, then press the **ACTION** ( ) button.



AUDIO MENU: The CinemaWall provides three audio memories for storing and recalling sound quality settings. To store settings in an audio memory, highlight AUDIO MENU in the SOUND menu and select STANDARD, DYNAMIC or CLEAR. The CinemaWall "remembers" any adjustments you make when you switch to a different audio memory, then switch back.

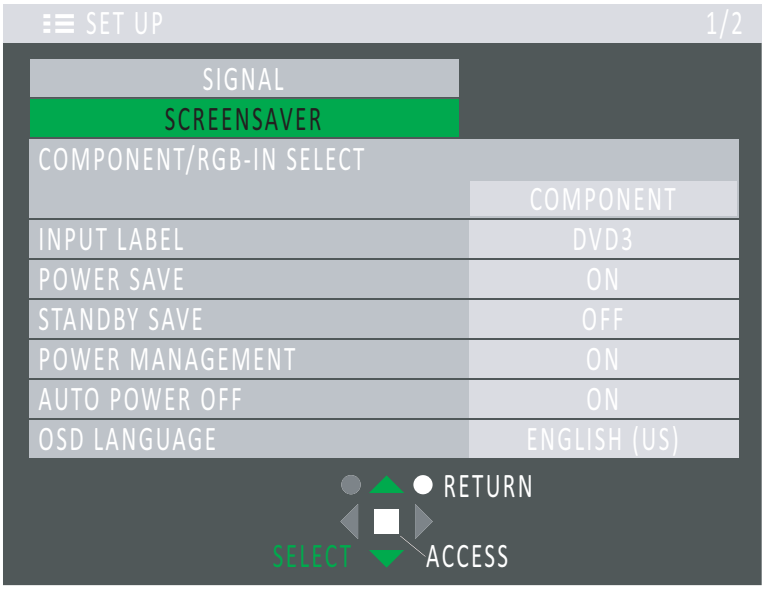
BASS/MID/TREBLE: Use these controls to boost or cut the low, mid-range and high frequencies respectively in the audio signal.

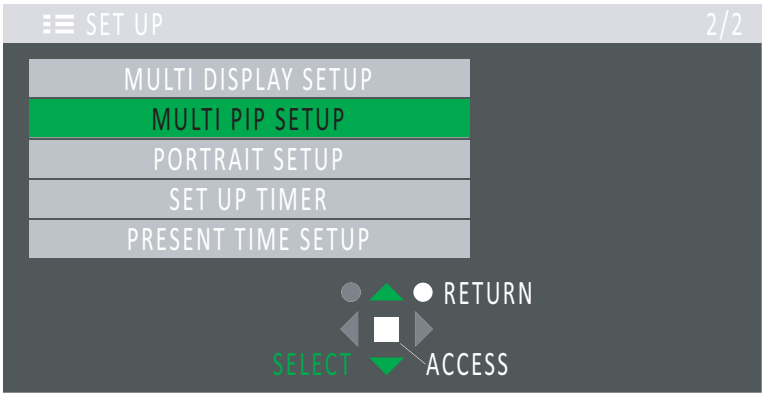
BALANCE: To adjust the left/right speaker balance, select BALANCE from the SOUND menu. Use the ◀ or ▶ buttons to make one channel louder than the other.

SURROUND: The CinemaWall has a "surround sound" mode that simulates a multi-channel sound system. To use the surround mode, select SURROUND from the SOUND menu and set it to ON.

AUDIO OUT (PIP): To swap the main and PIP audio programs when using the MULTI PIP feature, select AUDIO OUT (PIP) from the SOUND menu and set it to either MAIN or SUB. For more on MULTI PIP mode, refer to ***MULTI PIP SETUP*** on page 43.

SET UP ➤ Use the controls in the SET UP menu to perform advanced image quality adjustments and access various other CinemaWall features.





SIGNAL: Select SIGNAL from the SET UP menu to display information about the current signal and to adjust the following settings:

- **SYNC:** Select the sync method used by the PC or other RGB source using the PC INPUT.

  In most cases, the AUTO setting works well. However, if you know that your source outputs an RGB with sync-on-green signal and the AUTO setting does not produce a stable image, select ON G. Likewise, select VBS for a source that outputs an RGB with composite sync signal.

- **3:2 PULLDOWN:** To smooth out moving images from interlaced, standard-definition (SD) sources, select 3:2 PULLDOWN and set it to ON. With this setting, the CinemaWall attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second. If the image is not stable, set 3:2 PULLDOWN to OFF.

- **XGA MODE (INPUT3/PC INPUT only):** You can force the CinemaWall to use a specific output resolution with RGB PC sources. To do this select XGA MODE from the SIGNAL menu and set it to 1024x768, 1280x768 or 1366x768.
- **NOISE REDUCTION:** To apply noise reduction to the source signal, select NOISE REDUCTION from the SIGNAL menu. Noise Reduction is useful for clearing up noisy images from interlaced SD sources. Set it to OFF, MIN, MID or MAX as needed. Or, if you need more precise control over noise reduction, set it to ADVANCED, then press ▼ to access the following controls:
  - **Video NR:** Video NR is temporal and spatial noise reduction for all types of inputs. The scene is analyzed for differences from frame to frame and reduces those differences that are not determined to be motion.
  - **Block NR:** Use this control to reduce or eliminate so-called “block artifacts” in MPEG-compressed video signals (digital broadcasts or DVDs). Set it as needed to minimize distortion within horizontal and vertical block boundaries.
  - **Mosquito NR:** Use this control to reduce or eliminate so-called “mosquito noise” in MPEG-compressed video signals. Set it as needed to minimize distortion around the edges of moving objects, moving artifacts around edges and/or blotchy noise patterns superimposed over the objects.

SCREENSAVER: Select SCREENSAVER from the SET UP menu to configure the image burn-in prevention settings on the CinemaWall.

WARNING *To prevent image retention (burn) on your display, **ALWAYS** use a screen saver and set it to the shortest possible time.*

- **FUNCTION:** Select MODE from the SCREENSAVER menu and choose one of the following burn-in prevention methods:
  - **NEGATIVE IMAGE:** An inverse image is displayed on the screen.
  - **SCROLLING BAR ONLY:** The source image is replaced by a white bar scrolling from left to right.
  - **OVERLAY SCROLLING BAR:** The source image is dimmed and a white bar scrolling from left to right is superimposed on it.

    Note *OVERLAY SCROLLING BAR cannot be selected when MULTI PIP is active.*

  - **WHITE SCREEN:** The source image is replaced by a white screen.
- **MODE:** Select MODE from the SCREENSAVER menu to specify when the screen saver function becomes active.
  - **OFF:** The screen saver is disabled.
  - **INTERVAL:** The screen saver function becomes active after the selected SHOW DURATION and remains active for the selected SAVER DURATION (see below). This cycle repeats indefinitely.
  - **TIME OF DAY:** The CinemaWall activates the screen saver function daily at the selected START TIME and returns to normal operation at the selected FINISH TIME (see below).
  - **ON:** Select ON to activate the screen saver on demand. Then, press ▲ or ▼ repeatedly to highlight START in the menu and press the **ACTION** ( ) button.

- **START TIME/SHOW DURATION:** When the screen saver MODE is TIME OF DAY, set START TIME to the time of day that you want the screen saver to activate. When the screen saver MODE is INTERVAL, set SHOW DURATION to the "normal presentation" interval (no screen saver).

  Press ◀ or ▶ to change the SHOW DURATION interval in 15-minute increments, or to change the START TIME in one-minute increments. Press and hold ◀ or ▶ to change the START TIME interval in 15-minute increments.

- **FINISH TIME/SAVER DURATION:** When the screen saver MODE is TIME OF DAY, set FINISH TIME to the time of day that you want the screen saver to deactivate. When the screen saver MODE is INTERVAL, set SAVER DURATION to the desired screen saver interval.

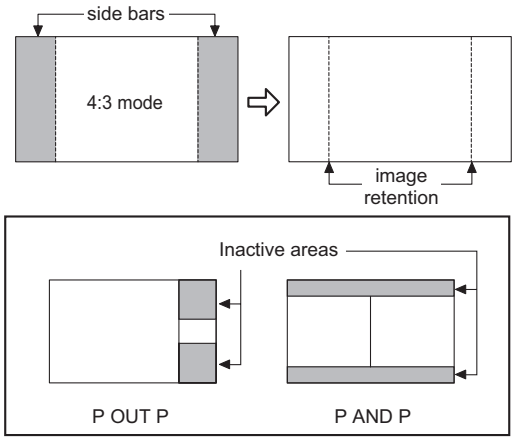
  Press ◀ or ▶ to change the SAVER DURATION interval or FINISH TIME in one-minute increments. Press and hold ◀ or ▶ to change the SAVER DURATION interval or FINISH TIME in 15-minute increments.

Note

1. *To deactivate the screen saver at any time, press **RETURN** on the remote control unit, or cycle power to the CinemaWall.*
2. *You must set the day and time in order to use the INTERVAL or TIME OF DAY screen saver mode; refer to **Setting the Day and Time** on page 21.*

- **SIDE BAR ADJUST:** Do not display an image in 4:3 mode for an extended period, as this can cause image retention in the inactive areas of the display. The same is true of P OUT P and P AND P multi-screen modes.

  To help prevent this, select SIDE BAR ADJUST from the SCREENSAVER menu and set it to BRIGHT. (Other choices are OFF, DARK and MID.)



- **WOBBLING/PEAK LIMIT:** These functions, when enabled, provide additional protection against image retention.
  - **WOBBLING:** WOBBLING automatically shifts the display image (in a manner unnoticeable to the eye) to prevent image retention. ON1 shifts the image every 30 seconds; ON2 shifts the image at a dot level pitch depending on screen detection.
  - **PEAK LIMIT:** PEAK LIMIT suppresses image contrast (peak brightness).

COMPONENT/RGB IN SELECT: Select COMPONENT/RGB IN SELECT from the SET UP menu to choose the color space of the for RGB and component source signals.

INPUT LABEL: You can give each CinemaWall input a descriptive name, to indicate the type of component connected to it (for example, "DVD3" instead of "INPUT3"). To do this, select INPUT LABEL from the SET UP menu and choose one from the list.

POWER SAVE: Select POWER SAVE from the SET UP menu and set it to ON to reduce the overall image intensity by a small amount, thereby reducing power consumption.

STANDBY SAVE: Select STANDBY SAVE from the SET UP menu and set it to ON to minimize power consumption during standby mode.

POWER MANAGEMENT: Select POWER MANAGEMENT from the SET UP menu and set it to ON to activate the power management function for the PC INPUT. This feature, when enabled, operates as follows:

- When no video or sync signals are detected on the PC INPUT for approximately 30 seconds, the power is turned off (standby) and the power indicator lights orange.
- When a signal is subsequently detected, power is restored and the power indicator lights green.

AUTO POWER OFF: Select AUTO POWER OFF from the SET UP menu and set it to ON to have the CinemaWall power itself off after 10 minutes when no signal is present on the PC INPUT.

Note

POWER MANAGEMENT and AUTO POWER OFF operate only on the PC INPUT and only under the following conditions:

- *SYNC is set to AUTO.*
- *COMPONENT/RGB IN SELECT is set to RGB.*
- *MULTI PIP is off.*

OSD LANGUAGE: Refer to ***Changing the OSD Language*** on page 21.

MULTI DISPLAY SETUP: You can create a video wall consisting of up to 25 (5x5) CinemaWall displays and display an enlarged image across all of them. To do this, select MULTI DISPLAY SETUP from the SET UP menu and press the **ACTION** ( ) button. Then, configure ***each*** display in the video wall as follows:

- **MULTI DISPLAY SETUP:** Select MULTI DISPLAY SETUP from the MULTI DISPLAY SETUP menu, the set it to ON to activate multi-display mode.

Note

In order to activate multi-display mode, you must first set the MULTI-PIP DISPLAY MODE to "-" (normal). Refer to ***DISPLAY MODE*** *on page 43.*

- **HORIZONTAL SCALE:** Select HORIZONTAL SCALE from the MULTI DISPLAY SETUP menu to specify the number of displays in each row of the video wall.
- **VERTICAL SCALE:** Select VERTICAL SCALE from the MULTI DISPLAY SETUP menu to specify the number of displays in each column of the video wall.

- **SEAM HIDES VIDEO:** Select SEAM HIDES VIDEO from the MULTI DISPLAY SETUP menu and set it to ON when displaying moving images on a video wall.

  SEAM HIDES VIDEO joins the edges of adjacent displays in a video wall together in such a way as to compensate for the gap between them. This causes moving objects to appear to move “behind” the gap, for better continuity of motion across the wall:

ON hides joints between displays:

(suitable for moving image display)

OFF shows joints between displays:

(suitable for still image display)

- **LOCATION:** Select LOCATION from the MULTI DISPLAY SETUP menu to specify the CinemaWall’s position in the video wall. This determines which segment of the enlarged image this panel will display.

  Columns are numbered left to right from 1 to 5; rows are numbered top to bottom from A to E:

2 × 1

A1	A2

2 × 3

A1	A2
B1	B2
C1	C2

4 × 2

A1	A2	A3	A4
B1	B2	B3	B4

4 × 4

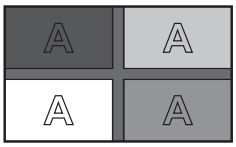
A1	A2	A3	A4
B1	B2	B3	B4
C1	C2	C3	C4
D1	D2	D3	D4

5 × 5

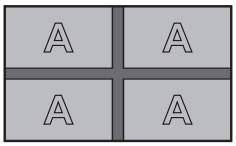
A1	A2	A3	A4	A5
B1	B2	B3	B4	B5
C1	C2	C3	C4	C5
D1	D2	D3	D4	D5
E1	E2	E3	E4	E5

- **AI SYNCHRONIZATION:** Set AI SYNCHRONIZATION to ON to apply the same brightness setting to all CinemaWall displays in the video wall. Set it to OFF if you want the ability to adjust the brightness of each display independently of the others.

OFF allows the brightness of each display to be adjusted independently.

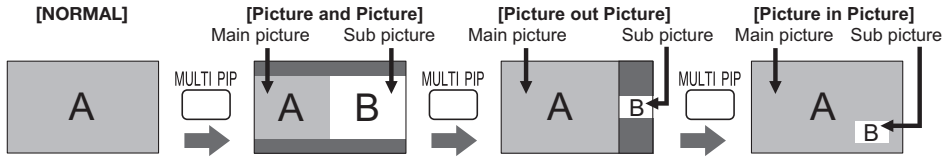


ON equalizes the brightness of all displays.

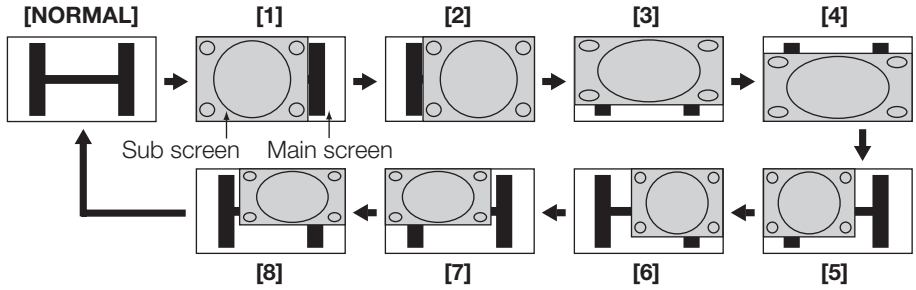


MULTI PIP SETUP: The CinemaWall can display an image from two sources at the same time in a variety of ways. To set up this feature, select MULTI PIP SETUP from the SET UP menu and press the **ACTION** ( ) button.

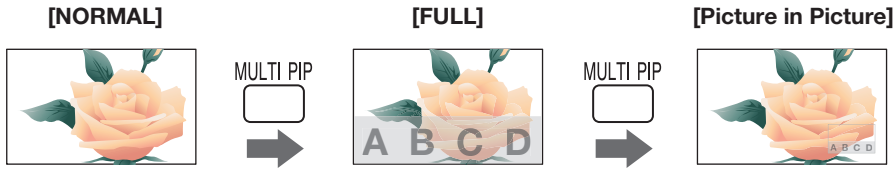
- **MULTI PIP:** Select one of the following to define the behavior of the MULTI PIP function. To switch to a different multi-PIP display mode, press the **MULTI PIP** remote control button repeatedly.
  - **PIP:** With PIP, three multi-PIP display modes are available:



  - **ADVANCED PIP:** Advanced PIP provides eight different multi-PIP display modes:



  - **BLEND PIP:** Use Blend PIP to create a composite image from two sources. For example, you can use a computer to display a caption over a movie or still image, in either full-screen or picture-in-picture display mode:



Note

Be aware that if you install the CinemaWall in a public place for commercial purposes or a public showing, using Blend PIP to create a composite image may violate copyright laws. It is prohibited to show or alter copyrighted materials for commercial purposes without the copyright owner's permission.

- **DISPLAY MODE:** Select DISPLAY MODE from the MULTI PIP SETUP menu to choose one of the multi-PIP display modes shown above. (This control has the same effect as pressing the **MULTI PIP** remote control button repeatedly.)

- **TRANSPARENCY/TRANSPARENCY LEVEL:** If you are using the Blend PIP feature, you can make the overlay (sub) image transparent so that the main (background) image shows through.

  To do this, select TRANSPARENCY from the MULTI PIP SETUP menu and set it to ON. Then, select TRANSPARENCY LEVEL from the MULTI PIP SETUP menu to control the degree to which you want the main image to show through.

TRANSPARENCY = 0%

TRANSPARENCY = 50%

TRANSPARENCY = 90%

Note *TRANSPARENCY cannot be used when INSERT is set to ON.*

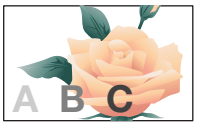
- **INSERT/INSERT LEVEL:** If you are using the Blend PIP feature, you can divide the overlay (sub) image into transparent and non-transparent areas. The CinemaWall then "inserts" only the non-transparent areas of the overlay image into the main (background) image.

  To use this feature, select INSERT from the MULTI PIP SETUP menu and set it to ON. Then, select INSERT LEVEL from the MULTI PIP SETUP menu to set the brightness level threshold for distinguishing between the transparent and non-transparent areas of the overlay image.

INSERT LEVEL = 1%

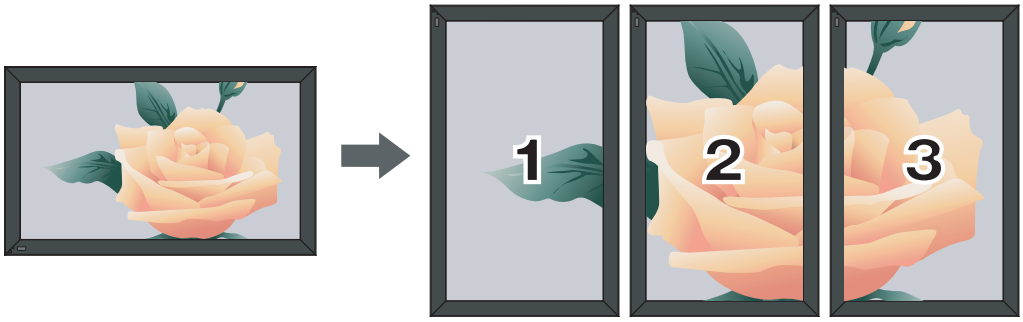
INSERT LEVEL = 5%

INSERT LEVEL = 10%



Note *INSERT cannot be used when TRANSPARENCY is set to ON.*

PORTRAIT SETUP: You can create a video wall consisting of three (3x1) CinemaWall displays in “portrait” mode and display an enlarged image across all of them.



To do this, select PORTRAIT SETUP from the SET UP menu and press the **ACTION** ( ) button. Then, configure ***each*** display in the video wall as follows:

- **PORTRAIT SETUP:** Select PORTRAIT SETUP from the PORTRAIT SETUP menu, the set it to ON to activate portrait mode.

  Note *In order to activate portrait mode, you must first set the MULTI-PIP DISPLAY MODE to “-” (normal). Refer to* ***DISPLAY MODE*** *on page 43.*

- **SEAM HIDES VIDEO:** Refer to ***SEAM HIDES VIDEO*** on page 42.
- **VIEWING AREA:** If you are displaying SD images with a 4:3 aspect ratio in portrait mode, select VIEWING AREA from the PORTRAIT SETUP menu and set it to 4:3.
- **LOCATION:** Select LOCATION from the PORTRAIT SETUP menu to specify the CinemaWall’s position in the video wall. This determines which segment of the enlarged image this panel will display. Select 1 for the left portion of the image, 2 for the center portion or 3 for the right portion.
- **AI SYNCHRONIZATION:** Refer to ***AI SYNCHRONIZATION*** on page 42.

SET UP TIMER: To program the CinemaWall to turn on and/or off at specific times each day, select SET UP TIMER from the SET UP menu and press the **ACTION** ( ) button.

Note *You cannot use the SET UP TIMER if you enable the Weekly Command Timer (refer to page 47).*

- **POWER ON FUNCTION/POWER ON TIME:** To enable automatic, time-of-day power on, set POWER ON FUNCTION to ON. Then, press ▼ to select POWER ON TIME.

  Press ◀ or ▶ to change the POWER ON TIME in one-minute increments. Press and hold ◀ or ▶ to change the POWER ON TIME in 15-minute increments.
- **POWER OFF FUNCTION/POWER OFF TIME:** To enable automatic, time-of-day shutdown, set POWER OFF FUNCTION to ON. Then, press ▼ to select POWER OFF TIME.

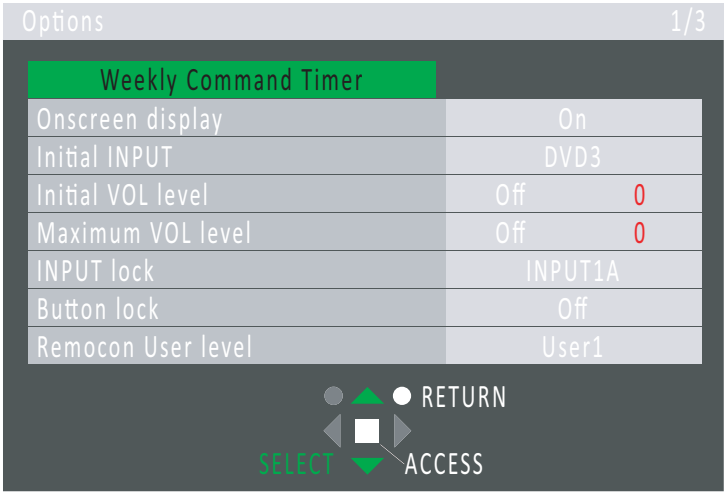
  Press ◀ or ▶ to change the POWER OFF TIME in one-minute increments. Press and hold ◀ or ▶ to change the POWER OFF TIME in 15-minute increments.

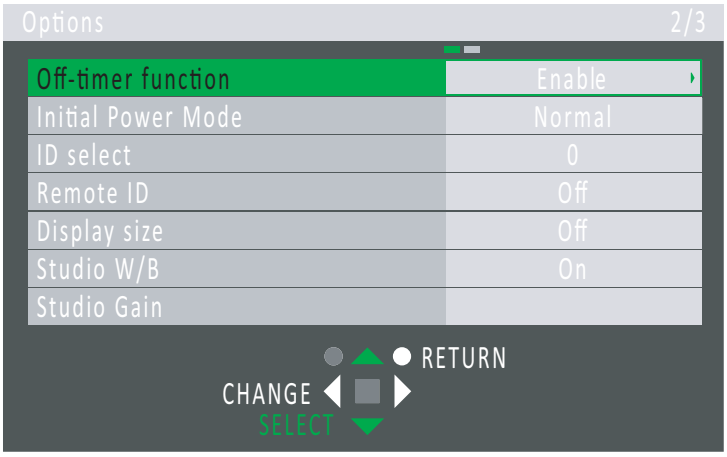
PRESENT TIME SETUP: Refer to ***Setting the Day and Time*** on page 21.

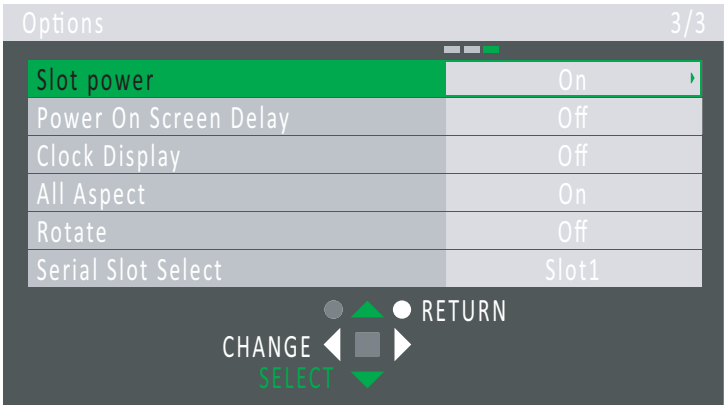
OPTIONS ➤ Use the controls in the OPTIONS menu to set up the Weekly Command Timer and perform other advanced, installation-related tasks.

To access the **OPTIONS** menu:

1. Press **SET UP**.
2. Press ▲ or ▼ repeatedly until OSD LANGUAGE is highlighted.
3. Press and hold the **SURROUND** ( ) button until the page 1 of the **OPTIONS** menu appears (approximately four seconds).







Weekly Command Timer: You can program the CinemaWall to perform a series of actions at specific times of the day and days of the week. To do this, you create command sequences or "programs" consisting of a series of up to 64 individual commands. You can create up to seven such programs and specify when they are executed.

For example, you can store the following command sequence as a program:

1. 8:00 - Power On
2. 8:01 - Select INPUT1A
3. 8:01 - Set Volume to 30
4. 8:15 - Enable Multi-PIP
5. 8:20 - Activate Screen Saver
6. 8:30 - Deactivate Screen Saver
7. 9:00 - Power Off

To configure the Weekly Command Timer, select it in the OPTIONS menu and press the **ACTION** (◉) button.

- **Function:** This is the "master switch" for the Weekly Command Timer feature. Set it to On to use this method to automate CinemaWall operation.

Note

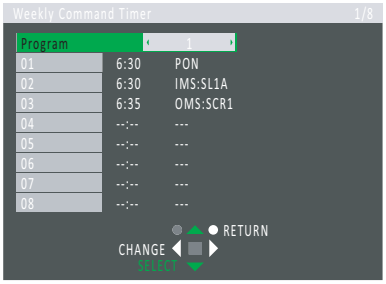
If you enable the Weekly Command Timer, you cannot use the SET UP TIMER, nor can you use the INTERVAL or TIME OF DAY screen saver modes.

- **Monday, Tuesday ... Sunday:** For each day of the week, select a program (Program1 ... Program7) that you want to use that day to control the CinemaWall. Or, select "---" for manual operation.

- **Program Edit:** To edit the seven timer programs, press ▲ or ▼ repeatedly to highlight Program Edit and press the **ACTION** ( ) button. Then, proceed as follows:

  a **Program:** Press ◀ or ▶ to select a program to edit.

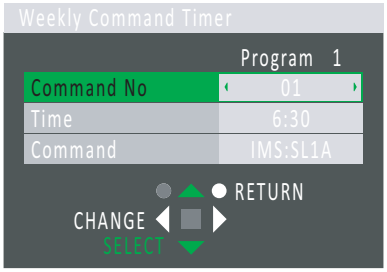
  b To define the first command in the program, press ▼ to select "01" and press the **ACTION** ( ) button.



  c Press ▼ to select "Time."

  d Press ◀ or ▶ to change the time of day at which you want the CinemaWall to execute the command, in one-minute increments. Or, press and hold ◀ or ▶ to change the time in 15-minute increments.

  e Press ▼ to select "Command."



  f Press ◀ or ▶ to select the command to be executed at the time you set in Step d. Refer to Table 6-1 for a description of these commands.

  g Press **RETURN** ( ).

  h Repeat Steps b through g for commands 2 through 8 in the program.

  i To define additional commands, press ▼ repeatedly to access them in the Program Edit menu. Or, to move between "pages" of the command list (there are eight commands per page), press ◀ or ▶.

  Repeat this procedure as needed to create additional programs.

Onscreen Display: Select Onscreen Display from the OPTIONS menu and set it to On to enable the display of the following on-screen indications:

- Current input and aspect ratio on power-up
- Input switch
- No signal display
- Mute and the remaining time on the off-timer when **RECALL** ( ) remote control button is pressed twice.

To prevent the display of these items, set Onscreen Display to OFF.

Initial INPUT: Select Initial INPUT from the OPTIONS menu to have the CinemaWall switch to a specific input every time it is turned on. Set it to Off to have the CinemaWall display whichever input was active when it was turned off.

Note *In order to select an initial input, you must set INPUT lock to Off (refer to page 49).*

Initial VOL level: Select Initial VOL level from the OPTIONS menu to set the desired sound volume level upon power-up.

Press ◀ or ▶ to set it to On, then use the **VOL-** or **VOL+** ( ) button to set the desired initial volume level. When you do, the volume changes so you can preview your selection before exiting the menu.

Note

You cannot set the Initial VOL level higher than the Maximum VOL level (see below).

Maximum VOL level: Select Maximum VOL level from the OPTIONS menu to prevent the sound volume from being set higher than a preferred threshold.

Press ◀ or ▶ to set it to On, then use the **VOL-** or **VOL+** ( ) button to set the maximum volume level. When you do, the volume changes so you can preview your selection before exiting the menu.

Note

1. *If you set the Maximum VOL level lower than the Initial VOL level (see above), the Maximum VOL level is set automatically set equal to the Initial VOL level.*
2. *The volume display can go up to 63 regardless of the Maximum VOL level setting. However, increasing the volume setting beyond the Maximum VOL level has no effect.*

INPUT lock: Select INPUT lock from the OPTIONS menu to allow only the selected input to be displayed and prevent the others from being selected. Set it to Off to allow any input to be selected.

Button lock: This menu option does not currently apply to the CinemaWall.

Remocon User level: Select Remocon User level from the OPTIONS menu to restrict OSD menu access via the remote control. Choose one of the following:

- **Off:** No restriction. All remote control buttons are functional.
- **User1:** Only the **POWER**, **INPUT**, **RECALL**, **SURROUND**, **MUTE**, **VOL-** and **VOL+** remote control buttons are functional.
- **User2:** Only the **POWER** button is functional.
- **User3: Disables the remote control altogether.**

Caution

Use this feature with caution. *Once you select User3, the only way to change it to something other than User3 is via the serial command* `OSP:RCM0`*,* `OSP:RCM1` *or* `OSP:RCM2`*. Refer to* ***Serial Communications*** *on page 55 for more information.*

Off-timer function: Select Off-timer function from the OPTIONS menu to enable or disable the **OFF TIMER** ( ) remote control button (see Figure 2-4).

Note

Setting Off-timer function to Disable cancels the Off-timer if it is currently active.

Initial Power Mode: Select Initial Power Mode from the OPTIONS menu to control how the CinemaWall recovers from a power interruption (resulting either from a power failure or from being unplugged, then plugged back in):

- **Normal:** The CinemaWall returns to whatever power-on state it was in before the power interruption.
- **Standby:** The CinemaWall comes on in standby mode. The power indicator lights red or orange.
- **On:** The CinemaWall returns to "power on" mode. The power indicator lights green.

Note

When using multiple displays – such as in a video wall – Runco recommends setting this to "Standby" in order to minimize power load.

ID select/Remote ID/Serial ID: These menu options do not currently apply to the CinemaWall.

Display size: Select Display size from the OPTIONS menu and set it to On to reduce the size of the displayed image by approximately five percent (5%).

Note

1. *This setting is not available when MULTI-PIP, Digital Zoom or MULTI-DISPLAY is active.*
2. *When Display size is set to On, the H-SIZE/V-SIZE controls (in the POS./SIZE menu) are not available and only the 16:9 and 4:3 aspect ratios can be selected.*

Studio W/B: Select Studio W/B from the OPTIONS menu and set it to On to set the color temperature to a level appropriate for television broadcast applications.

Note

Setting Studio W/B to On has no effect unless the COLOR TEMP (in the PICTURE menu) is set to WARM.

Studio Gain: Select Studio Gain from the OPTIONS menu and set it to On to sharpen the contrast for a better view when a part of the image is too light to see.

Slot power: Select Slot power from the OPTIONS menu to control when power is transmitted to the terminal boards installed in SLOT1, SLOT2 and SLOT3. Choose one of the following:

- **Off:** Power is not transmitted to the slot power.
- **Auto:** Power is transmitted to the slot power only when main power is on.
- **On:** Power is transmitted to the slot power when main power is on or in the standby state.

Note

In some cases, power is transmitted to the slot when the CinemaWall is on or in the standby state regardless of the Slot power setting.

Power On Screen Delay: In a large video wall installation, it may be advisable to turn the displays on one at a time rather than all at once, so as not to overload the power source.

To make this easier, you can set the CinemaWall to wait up to 30 seconds after you press the **POWER** button to turn itself on. To do this, select Power On Screen Delay from the OPTIONS menu. Select from 1 to 30 seconds of delay. For example, in a 2x2 video wall you might set a 4-second delay on display "A1," an 8-second delay on display "A2," a 12-second delay on display "A3" and no delay (Off) on display "A4."

Note *During the delay period, the power indicator flashes green.*

Clock Display: To have the CinemaWall display the time of day (in addition to the current input and aspect ratio) when the **RECALL** button is pressed, select Clock Display from the OPTIONS menu and set it to On.

Note *Until you set the day and time (refer to **Setting the Day and Time** on page 21), the Clock Display setting has no effect.*

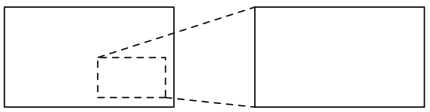
All Aspect: This option controls which aspect ratio selections are available to the viewer. Set it to On to allow the viewer to select all of the aspect ratios described in Table 4-1. If the viewer does not need that level of aspect ratio control, set it to Off for the sake of simplicity.

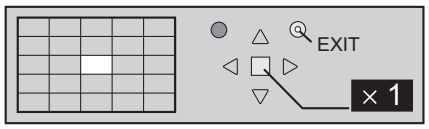
Rotate: If the CinemaWall is suspended from a ceiling, you may want to mount it upside down and run the cables upward (toward the ceiling) to make them less visible. If you do, select Rotate from the OPTIONS menu and set it to On to rotate the displayed image and OSD menus 180 degrees.

Serial Slot Select: This menu option does not currently apply to the CinemaWall.

4.9 Using Digital Zoom

The CinemaWall allows you to zoom in on a portion of the displayed image. To use this feature:





1. Press the **MOVE/ZOOM** (MOVE ZOOM) button.
2. An on-screen guide appears. Press the **ACTION** button to select a zoom level (x1, x2, x3 or x4).
3. Press ◀, ▶, ▲ or ▼ to select an area of the image to enlarge. The on-screen guide shows you the selected area as you do this.
4. To return to normal viewing mode, press **RETURN** (RETURN) or **MOVE/ZOOM** (MOVE ZOOM).

Notes:

5. Maintenance and Troubleshooting

5.1 Cleaning

Regular cleaning will extend the life and performance of the CinemaWall. Before cleaning, be sure to unplug the power cord from the power outlet.

◄ *Cleaning the Display Panel Body and Remote Control*

Do not under any circumstances use solvents such as benzene or thinner to clean the CinemaWall. Doing so may cause deterioration or peeling of paint from the display or remote control unit.

Wipe the display and remote control gently with a soft cloth. In the case of excessive dirt buildup, dampen a soft cloth with a diluted neutral cleaning detergent and after wringing the cloth thoroughly, wipe the component and then dry it with a dry soft cloth.

◄ *Cleaning the Screen*

After dusting, wipe the screen gently using a soft cloth (cotton, flannel etc.). Do not use tissue or a rough cloth. The screen surface is easily scratched; do not rub it or hit it with a hard object.

If you clean the surface of the screen with a wet cloth, water droplets on the surface may enter into the product and cause a malfunction.

◄ *Cleaning the Vents*

As a general rule, use a vacuum cleaner about once a month to clean the vents on the rear panel of the display of dust buildup (set the vacuum cleaner to its weakest setting when doing this). If not removed, accumulated dust can cause the internal temperature to increase, resulting in possible breakdown or fire.

5.2 Troubleshooting Tips

Table 5-1 provides some general guidelines for troubleshooting problems you may encounter with the CinemaWall. If the suggested solutions fail to resolve the problem or if you encounter an issue not described here, please contact your Runco dealer or Runco Technical Support.

Table 5-1. Troubleshooting Chart

Symptom	Possible Cause(s)	Solution
The display does not turn on after initial installation.	• The CinemaWall is not plugged in or the AC outlet is not active. • The remote control batteries have run out.	• Ensure that the CinemaWall is plugged in and that the AC outlet is active. • Replace the batteries.
The display is on and menus appear, but there is no picture.	• Incorrect source selection. • Source component is not turned on. • Source component is connected incorrectly or not at all.	• Select the correct source. • Turn on the source component. • Check connections from source component to CinemaWall.
Image is too bright and/or lacks definition in the bright areas of the image.	• Picture level (contrast) is set too high.	• Lower the contrast setting (refer to page 31).
Image appears “washed out” and/or dark areas appear too bright.	• Brightness is set too high.	• Lower the brightness setting (refer to page 32).
Colors in the image are swapped; for example, reds appear blue or vice versa.	• The Red/Pr, Green/Y or Blue/Pb outputs from the source are connected to the wrong inputs on the CinemaWall.	• Ensure that the source outputs are connected to the correct CinemaWall input.
RGB-HD images appear “noisy.”	• Clock and Phase settings need adjustment.	• Adjust Clock and Phase settings (refer to ***SIGNAL*** on page 38).
Computer images do not display correctly.	• The resolution and frequency of the video card in the computer are not compatible with the CinemaWall.	• Select a compatible resolution and vertical frequency (refer to ***Supported Timings*** on page 66).
The image is too large, too small or positioned incorrectly.	• Image size and/or position needs adjusting.	• Adjust the image size and/or position (refer to ***POS./SIZE*** on page 35).

6. Serial Communications

6.1 RS-232 Connection and Port Configuration

To interface the CinemaWall with a home theater automation/control system or a PC running terminal emulation software, connect it to your control system or PC as shown in Figure 3-5. **Use a straight-through cable.**

Configure the RS-232 controller or PC serial port as follows:

- 9600 baud
- No parity
- Eight (8) data bits
- One (1) stop bit
- No flow control

6.2 Serial Command Syntax

Serial commands to the CinemaWall take the following form:

- You can send commands in either hexadecimal or ASCII format.
- ASCII commands are case-sensitive and must be in UPPERCASE.
- Commands begin with the "Start of Text" (STX) character (02h or **<Ctrl>** B in ASCII), followed by the command data, the colon character (3Ah or **:** in ASCII), command parameter (1 to 8 bytes; refer to Table 6-1) and the "End of Text" (ETX) character (03h or **<Ctrl>** C in ASCII). Not all commands require parameters to be sent with them; examples of such commands are PON (power on), POF (power off) and IMS (toggle input selection).
- You do not need to send a carriage return after the command.
- When sending multiple commands, be sure to wait for a response to the first command to come from the CinemaWall before sending the next command.
- When you send a valid command, the CinemaWall executes it and echoes the command (without the parameter) back to the controller.
- If you send an invalid command, the CinemaWall sends **ER401** back to the controller.

To select the PC input, send the following sequence:

◄ ***Examples***

	STX	Command (3 bytes)		Parameter (3 bytes)	ETX
Hex	02	49 4D 53	3A	50 43 31	03
ASCII	**<Ctrl>** B	I M S	:	P C 1	**<Ctrl>** C

To set the Picture Level (contrast) to its highest possible level (+30), send the following sequence:

	STX	Command (3 bytes)		Parameter (6 bytes)	ETX
Hex	02	56 50 43	3A	50 49 43 30 33 30	03
ASCII	**<Ctrl>** B	V P C	:	P I C 0 3 0	**<Ctrl>** C

Table 6-1 lists the CinemaWall serial command set.

Table 6-1. Serial Commands

ASCII	Hex	Description
AAC:BAL030	41 41 43 3A 42 41 4C 30 33 30	Balance = 30 (right channel only)
AAC:BAL-30	41 41 43 3A 42 41 4C 2D 33 30	Balance = -30 (left channel only)
AAC:BAS015	41 41 43 3A 42 41 53 30 31 35	Bass = 15 (max)
AAC:BAS-15	41 41 43 3A 42 41 53 2D 31 35	Bass = -15 (min)
AAC:MENCLR	41 41 43 3A 4D 45 4E 43 4C 52	Audio Menu = CLEAR
AAC:MENDYN	41 41 43 3A 4D 45 4E 44 59 4E	Audio Menu = DYNAMIC
AAC:MENSTD	41 41 43 3A 4D 45 4E 53 54 44	Audio Menu = STANDARD
AAC:MID015	41 41 43 3A 4D 49 44 30 31 35	Midrange = 15 (max)
AAC:MID-15	41 41 43 3A 4D 49 44 2D 31 35	Midrange = -15 (min)
AAC:SURMON	41 41 43 3A 53 55 52 4D 4F 4E	Surround = ON
AAC:SUROFF	41 41 43 3A 53 55 52 4F 46 46	Surround = OFF
AAC:TRE015	41 41 43 3A 54 52 45 30 31 35	Treble = 15 (max)
AAC:TRE-15	41 41 43 3A 54 52 45 2D 31 35	Treble = -15 (min)
AMT:0	41 4D 54 3A 30	Audio Mute = OFF
AMT:1	41 4D 54 3A 31	Audio Mute = ON
ASO:M	41 53 4F 3A 4D	Audio out when in PIP mode = Main Picture
ASO:S	41 53 4F 3A 53	Audio out when in PIP mode = Sub Picture
AUD	41 55 44	Audio Volume Down
AUU	41 55 55	Audio Volume Up
AVL:00	41 56 4C 3A 30 30	Audio Volume = 00
AVL:10	41 56 4C 3A 31 30	Audio Volume = 10
AVL:20	41 56 4C 3A 32 30	Audio Volume = 20
AVL:30	41 56 4C 3A 33 30	Audio Volume = 30
AVL:40	41 56 4C 3A 34 30	Audio Volume = 40
AVL:50	41 56 4C 3A 35 30	Audio Volume = 50
AVL:60	41 56 4C 3A 36 30	Audio Volume = 60
DAM:FULL	44 41 4D 3A 46 55 4C 4C	Aspect Ratio = 16:9
DAM:JUST	44 41 4D 3A 4A 55 53 54	Aspect Ratio = VIRTUALWIDE
DAM:NORM	44 41 4D 3A 4E 4F 52 4D	Aspect Ratio = 4:3

Table 6-1. Serial Commands (continued)

ASCII	Hex	Description
DAM:ZOOM	44 41 4D 3A 5A 4F 4F 4D	Aspect Ratio = LETTERBOX
DAM:CINE	44 41 4D 3A 43 49 4E 45	Aspect Ratio = CINEMA
DGE:CLK0016	44 47 45 3A 43 4C 4B 30 30 31 36	Phase = 16 (max)
DGE:CLK-016	44 47 45 3A 43 4C 4B 2D 30 31 36	Phase = -16 (min)
DGE:HPO0124	44 47 45 3A 48 50 4F 30 31 32 34	Horiz. Position = 124 (max)
DGE:HPO-124	44 47 45 3A 48 50 4F 2D 31 32 34	Horiz. Position = -124 (min)
DGE:HSZ0062	44 47 45 3A 48 53 5A 30 30 36 32	Width = 62 (max)
DGE:HSZ-062	44 47 45 3A 48 53 5A 2D 30 36 32	Width = -62 (min)
DGE:VPO0124	44 47 45 3A 56 50 4F 30 31 32 34	Vert. Position = 124 (max)
DGE:VPO-124	44 47 45 3A 56 50 4F 2D 31 32 34	Vert. Position = -124 (min)
DGE:VSZ0062	44 47 45 3A 56 53 5A 30 30 36 32	Height = 62 (max)
DGE:VSZ-062	44 47 45 3A 56 53 5A 2D 30 36 32	Height = -62 (min)
DWA:OFF	44 57 41 3A 4F 46 46	Dual Picture mode = OFF
DWA:OVL1	44 57 41 3A 4F 56 4C 31	Advanced PIP mode = 1
DWA:OVL2	44 57 41 3A 4F 56 4C 32	Advanced PIP mode = 2
DWA:OVL3	44 57 41 3A 4F 56 4C 33	Advanced PIP mode = 3
DWA:OVL4	44 57 41 3A 4F 56 4C 34	Advanced PIP mode = 4
DWA:OVL5	44 57 41 3A 4F 56 4C 35	Advanced PIP mode = 5
DWA:OVL6	44 57 41 3A 4F 56 4C 36	Advanced PIP mode = 6
DWA:OVLOF	44 57 41 3A 4F 56 4C 4F 46	Advanced PIP mode = OFF (normal two-screen display mode)
DWA:OVLON	44 57 41 3A 4F 56 4C 4F 4E	Advanced PIP mode = ON
DWA:PIN0	44 57 41 3A 50 49 4E 30	PIP window position = lower right
DWA:PIN1	44 57 41 3A 50 49 4E 31	PIP window position = lower left
DWA:PIN2	44 57 41 3A 50 49 4E 32	PIP window position = upper left
DWA:PIN3	44 57 41 3A 50 49 4E 33	PIP window position = upper right
DWA:PIP	44 57 41 3A 50 49 50	Dual Picture mode = Picture in Picture
DWA:POP	44 57 41 3A 50 4F 50	Dual Picture mode = Picture out Picture
DWA:SWP	44 57 41 3A 53 57 50	Swap main picture and sub picture when PIP mode
DWA:TWN	44 57 41 3A 54 57 4E	Dual Picture mode = Picture and Picture

Table 6-1. Serial Commands (continued)

ASCII	Hex	Description
IMS:PC1	49 4D 53 3A 50 43 31	Input select = PC1 (Main Picture when PIP mode)
IMS:SL1A	49 4D 53 3A 53 4C 31 41	Input select = SLOT1A (Main Picture when PIP mode)
IMS:SL1B	49 4D 53 3A 53 4C 31 42	Input select = SLOT1B (Main Picture when PIP mode)
IMS:SL2A	49 4D 53 3A 53 4C 32 41	Input select = SLOT2A (Main Picture when PIP mode)
IMS:SL2B	49 4D 53 3A 53 4C 32 42	Input select = SLOT2B (Main Picture when PIP mode)
IMS:SL3	49 4D 53 3A 53 4C 33	Input select = SLOT3 (Main Picture when PIP mode)
ISS:PC1	49 53 53 3A 50 43 31	Sub Picture Input Select = PC1
ISS:SL1A	49 53 53 3A 53 4C 31 41	Sub Picture Input Select = SLOT1A
ISS:SL1B	49 53 53 3A 53 4C 31 42	Sub Picture Input Select = SLOT1B
ISS:SL2A	49 53 53 3A 53 4C 32 41	Sub Picture Input Select = SLOT2A
ISS:SL2B	49 53 53 3A 53 4C 32 42	Sub Picture Input Select = SLOT2B
ISS:SL3	49 53 53 3A 53 4C 33	Sub Picture Input Select = SLOT3
OSP:OSD0	4F 53 50 3A 4F 53 44 30	OSD OFF
OSP:OSD1	4F 53 50 3A 4F 53 44 31	OSD ON
OSP:RCM0 OSP:RCM1 OSP:RCM2 OSP:RCM3	4F 53 50 3A 52 43 4D 30 4F 53 50 3A 52 43 4D 31 4F 53 50 3A 52 43 4D 32 4F 53 50 3A 52 43 4D 33	Remote Control User Level = Off Remote Control User Level = User1 Remote Control User Level = User2 Remote Control User Level = User3
OSP:SCR0	4F 53 50 3A 53 43 52 30	Screen Saver SCROLLING BAR ONLY = OFF
OSP:SCR1	4F 53 50 3A 53 43 52 31	Screen Saver SCROLLING BAR ONLY = ON
POF	50 4F 46	Power OFF
PON	50 4F 4E	Power ON
SSC:0000	53 53 43 3A 30 30 30 30	Screen Saver Duration = 0:00 (Interval Mode) or Finish Time = 0:00 (Time of Day Mode)

Table 6-1. Serial Commands (continued)

ASCII	Hex	Description
SSC:2359	53 53 43 3A 32 33 35 39	Screen Saver Duration = 23:59 (Interval Mode) or Finish Time = 11:59PM (Time of Day Mode)
SSC:FNC0	53 53 43 3A 46 4E 43 30	Screen Saver function = SCROLLING BAR ONLY
SSC:FNC1	53 53 43 3A 46 4E 43 31	Screen Saver function = NEGATIVE IMAGE
SSC:INT0000	53 53 43 3A 49 4E 54 30 30 30 30	Screen Saver Show Duration = 0:00 (Interval Mode)
SSC:INT2345	53 53 43 3A 49 4E 54 32 33 34 35	Screen Saver Show Duration = 23:45 (Interval Mode)
SSC:MOD0	53 53 43 3A 4D 4F 44 30	Screen Saver Mode = OFF
SSC:MOD1	53 53 43 3A 4D 4F 44 31	Screen Saver Mode = Interval
SSC:MOD2	53 53 43 3A 4D 4F 44 32	Screen Saver Mode = Time of Day
SSC:MOD3	53 53 43 3A 4D 4F 44 33	Screen Saver Mode = ON
SSC:SPC0	53 53 43 3A 53 50 43 30	Side Bar Adjust = OFF
SSC:SPC1	53 53 43 3A 53 50 43 31	Side Bar Adjust = DARK
SSC:SPC2	53 53 43 3A 53 50 43 32	Side Bar Adjust = MID
SSC:SPC3	53 53 43 3A 53 50 43 33	Side Bar Adjust = BRIGHT
SSC:TIM0000	53 53 43 3A 54 49 4D 30 30 30 30	Screen Saver Start Time = 0:00 (Time of Day Mode)
SSC:TIM2359	53 53 43 3A 54 49 4D 32 33 35 39	Screen Saver Start Time = 11:59PM (Time of Day Mode)
SSG:SNCGRN	53 53 47 3A 53 4E 43 47 52 4E	Sync Mode (PC IN) = ON G
SSG:SNCHAV	53 53 47 3A 53 4E 43 48 41 56	Sync Mode (PC IN) = AUTO
SSG:SNCVID	53 53 47 3A 53 4E 43 56 49 44	Sync Mode (PC IN) = VBS (Composite)
SSU:CMPRGB	53 53 55 3A 43 4D 50 52 47 42	Component/RGB In Select = RGB
SSU:CMPYBR	53 53 55 3A 43 4D 50 59 42 52	Component/RGB In Select = COMPONENT
TIM:DAYMON	54 49 4D 3A 44 41 59 4D 4F 4E	Present Day = Monday
TIM:DAYSUN	54 49 4D 3A 44 41 59 53 55 4E	Present Day = Sunday
TIM:NOW00000	54 49 4D 3A 4E 4F 57 30 30 30 30 30	Present Time of Day = 0:00
TIM:NOW02359	54 49 4D 3A 4E 4F 57 30 32 33 35 39	Present Time of Day = 11:59PM
TIM:POF00000	54 49 4D 3A 50 4F 46 30 30 30 30 30	Power Off Time = None
TIM:POF10000	54 49 4D 3A 50 4F 46 31 30 30 30 30	Power Off Time = 0:00

Table 6-1. Serial Commands (continued)

ASCII	Hex	Description
TIM:POF12359	54 49 4D 3A 50 4F 46 31 32 33 35 39	Power Off Time = 11:59PM
TIM:PON00000	54 49 4D 3A 50 4F 4E 30 30 30 30 30	Power On Time = None
TIM:PON10000	54 49 4D 3A 50 4F 4E 31 30 30 30 30	Power On Time = 0:00
TIM:PON12359	54 49 4D 3A 50 4F 4E 31 32 33 35 39	Power On Time = 11:59PM
VDO	56 44 4F	OSD clear
VMT	56 4D 54	Picture Mute (toggle)
VMT:0	56 4D 54 3A 30	Picture Mute = OFF
VMT:1	56 4D 54 3A 31	Picture Mute = ON
VPC:BLK030	56 50 43 3A 42 4C 4B 30 33 30	Brightness = 30 (max)
VPC:BLK-30	56 50 43 3A 42 4C 4B 2D 33 30	Brightness = -30 (min)
VPC:MENSTD	56 50 43 3A 4D 45 4E 53 54 44	Picture Menu = Standard
VPC:MENDYN	56 50 43 3A 4D 45 4E 44 59 4E	Picture Menu = ISF Day
VPC:MENCNM	56 50 43 3A 4D 45 4E 43 4E 4D	Picture Menu = ISF Night
VPC:MENMON	56 50 43 3A 4D 45 4E 4D 4F 4E	Picture Menu = Monitor
VPC:PAJ0	56 50 43 3A 50 41 4A 30	Color management = OFF
VPC:PAJ1	56 50 43 3A 50 41 4A 31	Color management = ON
VPC:PIC-30	56 50 43 3A 50 49 43 2D 33 30	Picture Level (Contrast) = -30 (min)
VPC:PIC000	56 50 43 3A 50 49 43 30 30 30	Picture Level (Contrast) = 0
VPC:PIC030	56 50 43 3A 50 49 43 30 33 30	Picture Level (Contrast) = 30 (max)
VPC:SHP015	56 50 43 3A 53 48 50 30 31 35	Sharpness = 15 (max)
VPC:SHP-15	56 50 43 3A 53 48 50 2D 31 35	Sharpness = -15 (min)
VPC:TMPCOL	56 50 43 3A 54 4D 50 43 4F 4C	Color Temp = COOL
VPC:TMPMID	56 50 43 3A 54 4D 50 4D 49 44	Color Temp = NORMAL
VPC:TMPWRM	56 50 43 3A 54 4D 50 57 52 4D	Color Temp = WARM
VWB:BCT030	56 57 42 3A 42 43 54 30 33 30	Blue Offset = 30 (max)
VWB:BCT-30	56 57 42 3A 42 43 54 2D 33 30	Blue Offset = -30 (min)
VWB:BDR030	56 57 42 3A 42 44 52 30 33 30	Blue Gain = 30 (max)
VWB:BDR-30	56 57 42 3A 42 44 52 2D 33 30	Blue Gain = -30 (min)
VWB:BEX000	56 57 42 3A 42 45 58 30 30 30	Black Extension = 0 (min)
VWB:BEX008	56 57 42 3A 42 45 58 30 30 38	Black Extension = 8 (max)
VWB:GCT030	56 57 42 3A 47 43 54 30 33 30	Green Offset = 30 (max)

Table 6-1. Serial Commands (continued)

ASCII	Hex	Description
VWB:GCT-30	56 57 42 3A 47 43 54 2D 33 30	Green Offset = -30 (min)
VWB:GDR030	56 57 42 3A 47 44 52 30 33 30	Green Gain = 30 (max)
VWB:GDR-30	56 57 42 3A 47 44 52 2D 33 30	Green Gain = -30 (min)
VWB:GMM20	56 57 42 3A 47 4D 4D 32 30	Gamma = 2.0
VWB:GMM22	56 57 42 3A 47 4D 4D 32 32	Gamma = 2.2
VWB:GMM25	56 57 42 3A 47 4D 4D 32 35	Gamma = 2.5
VWB:GMMSC	56 57 42 3A 47 4D 4D 53 43	Gamma = S-Curve
VWB:ILV032	56 57 42 3A 49 4C 56 30 33 32	Input Level = 32 (max)
VWB:ILV-32	56 57 42 3A 49 4C 56 2D 33 32	Input Level = -32 (min)
VWB:RCT030	56 57 42 3A 52 43 54 30 33 30	Red Offset = 30 (max)
VWB:RCT-30	56 57 42 3A 52 43 54 2D 33 30	Red Offset = -30 (min)
VWB:RDR030	56 57 42 3A 52 44 52 30 33 30	Red Gain = 30 (max)
VWB:RDR-30	56 57 42 3A 52 44 52 2D 33 30	Red Gain = -30 (min)
VWB:TEC0	56 57 42 3A 54 45 43 30	Advanced Settings = OFF
VWB:TEC1	56 57 42 3A 54 45 43 31	Advanced Settings = ON

Notes:

7. Specifications

7.1 CinemaWall Specifications

Table 7-1 lists the CinemaWall specifications.

Table 7-1. CinemaWall Specifications

Native Resolution:	1920 x 1080
Screen Size:	**XP-50, XP-OPAL50:** 43.50 in. W x 24.50 in. H (1106.0 x 622.0 mm) 50 in. (1270.0 mm) diagonal **XP-65, XP-OPAL65:** 56.50 in. W x 31.80 in. H (1434.0 x 807.0 mm) 65 in. (1646.0 mm) diagonal
Screen Aspect Ratio:	16:9
Available Aspect Ratios:	Refer to Table 4-1
DTV Compatibility:	480p, 720p, 1080i, 1080p
Contrast Ratio:	30,000:1 maximum
Data/Graphics Compatibility:	VGA, SVGA, XGA, SXGA, UXGA (compressed) Horiz. scan frequency = 15 to 110 kHz Vert. scan frequency = 48 to 120 Hz
Video Inputs:	(4) Digital Video (HDMI 1.2A with HDCP) (1) Component/RGB (BNCx3) with Stereo Audio (RCAx2) (1) PC (15-pin D-Sub) (1) RS-232 (9-pin, D-sub male)
Audio System	Internal amplifier Output Power = 10W RMS x 2 at 8Ω
Power Requirements:	100 to 240 VAC, 50/60Hz
Power Consumption:	**XP-50, XP-OPAL50:** 605 W (0.9 W in standby), maximum **XP-65, XP-OPAL65:** 755 W (1.0 W in standby), maximum
Operating Environment:	40ºF to 95ºF (5ºC to 35ºC); 20% to 80% humidity (non-condensing) Ambient air pressure = 720 hPa, minimum Altitude = up to 9,100 feet (2,774 meters)
Dimensions:	**XP-50, XP-OPAL50:** See Figure 7-1 **XP-65, XP-OPAL65:** See Figure 7-2
Weight (panel only, without stand):	**XP-50, XP-OPAL50:** 93.0 lbs. (42.18 kg) **XP-65, XP-OPAL65:** 163.1 lbs. (73.98 kg)
Regulatory Approvals:	Complies with FCC Part 15 Class B, ICES-003, UL6500 Ver.2

Specifications are subject to change without notice.

7.2 CinemaWall Dimensions

Figure 7-1 and Figure 7-2 show the CinemaWall dimensions (all dimensions are in inches).

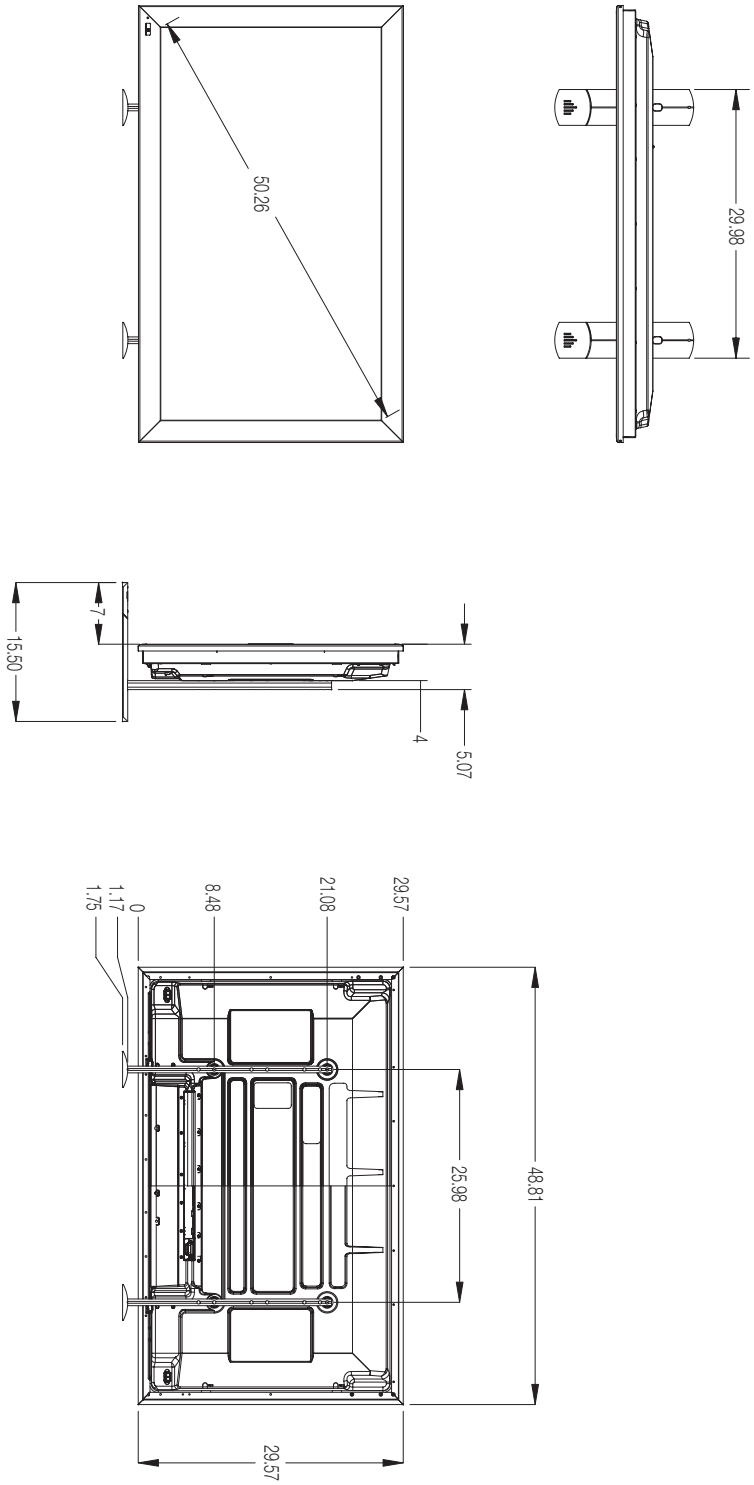


Figure 7-1. CinemaWall Model XP-50 and XP-OPAL50 Dimensions (with Optional Table Stand)

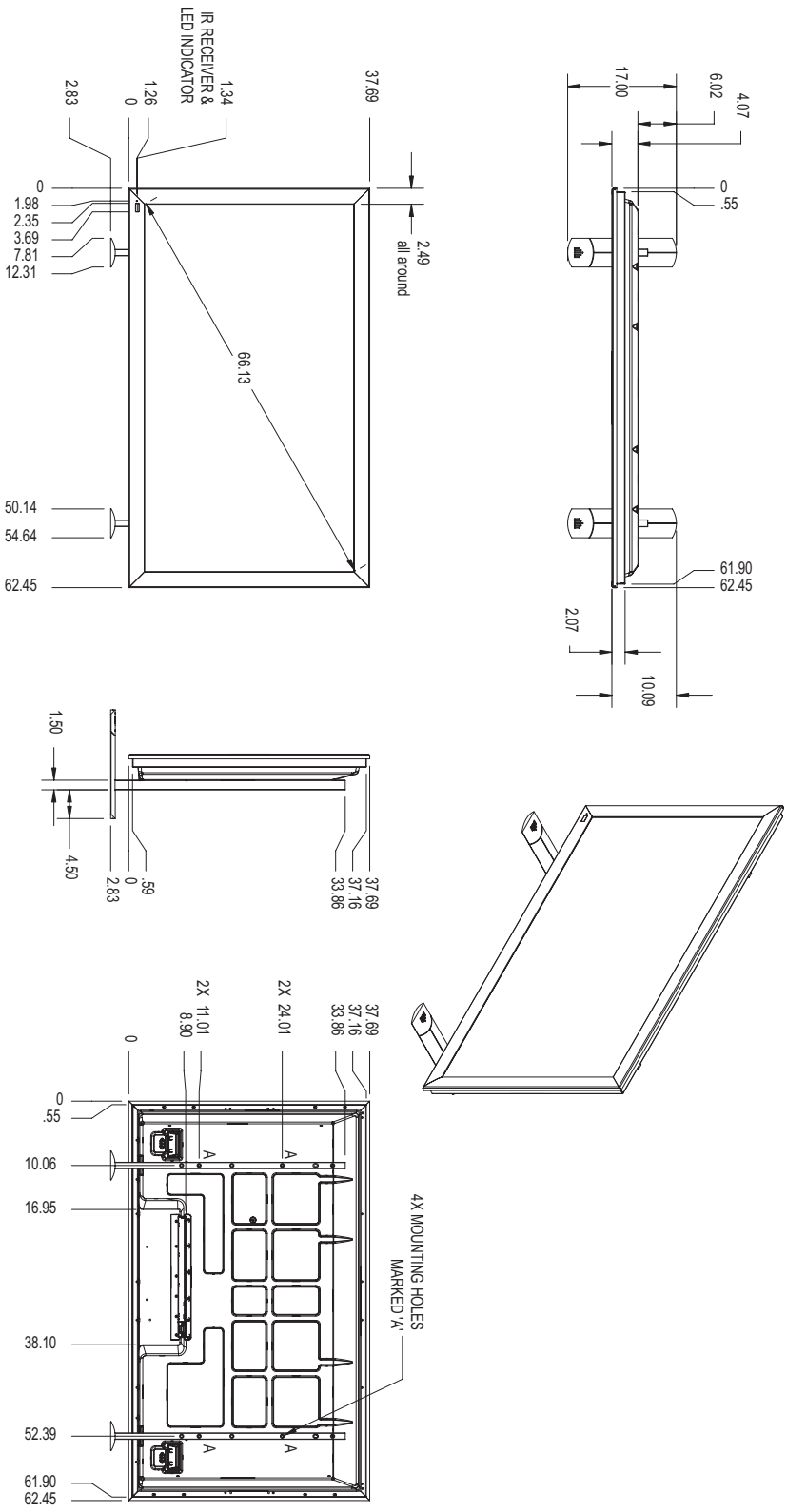


Figure 7-2. CinemaWall Model XP-65 and XP-OPAL65 Dimensions (with Optional Table Stand)

7.3 Supported Timings

Table 7-2 lists the signal types supported by each input on the CinemaWall.

Table 7-2. Supported Signal Timings by Input

Format	Resolution	Refresh Rate (Hz)	Horizontal Frequency (kHz)	Pixel Frequency (MHz)	Supported? (√ = Yes, – = No)		
					PC IN	HDMI 1A HDMI 1B HDMI 2A HDMI 2B	COMPONENT /RGB
640x480	640x480	60.00	31.469	25.175	√	√	–
		66.67	35.000	30.240	√	–	–
		72.00	37.861	31.500	√	–	–
		75.00	37.500	31.500	√	–	–
		85.00	43.269	36.000	√	–	–
800x600	800x600	56.00	35.156	36.000	√	–	–
		60.00	37.879	40.000	√	–	–
		72.00	48.077	50.000	√	–	–
		75.00	46.875	49.500	√	–	–
		85.00	53.674	56.250	√	–	–
832x624	832x624	74.54	49.720	57.283	√	–	–
852x480	852x480	60.00	31.726	34.010	√	–	–
1024x768	1024x768	60.00	48.363	65.000	√	–	–
		70.00	56.476	75.000	√	–	–
		75.00	60.023	78.750	√	–	–
		85.00	68.677	94.500	√	–	–
1152x864	1152x864	75.00	67.500	108.000	√	–	–
1152x870	1152x870	75.06	68.680	100.330	√	–	–
1280x960	1280x960	60.00	60.000	108.000	√	–	–
		85.00	85.938	148.500	√	–	–
1280x1024	1280x1024	60.00	63.981	108.000	√	–	–
		75.00	79.976	135.000	√	–	–
		85.00	91.146	157.500	√	–	–
1366x768	1366x768	60.00	48.360	80.000	√	–	–
1600x1200	1600x1200	60.00	75.000	161.200	√	–	–
		65.00	81.250	162.000	√	–	–
1920x1080	1920x1080	60.00	67.470	148.550	(displays at 1125/60p)	–	–

Table 7-2. Supported Signal Timings by Input (continued)

Format	Resolution	Refresh Rate (Hz)	Horizontal Frequency (kHz)	Pixel Frequency (MHz)	Supported? (√ = Yes, – = No)		
					PC IN	HDMI 1A HDMI 1B HDMI 2A HDMI 2B	COMPONENT /RGB
480/60i	720x487	59.94	15.734	13.500	√	–	√
480/60p	720x483	59.94	31.469	27.000	√	√	√
576/50i	720x576	50.00	15.625	14.750	√	–	√
576/50p	720x576	50.00	31.250	29.000	√	√	√
720/50p	1280x720	50.00	37.500	75.250	√	√	√
720/60p	1280x720	60.00	45.000	74.250	√	√	√
1080/50i	1920x1080	50.00	28.125/31.250	74.250/72.000	√	√	√
1080/60i	1920x1080	59.94/60.00	33.716/33.750	74.175/74.250	√	√	√
1080/24p	1920x1080	23.98/24.00	26.978/27.000	74.175/74.250	√	√	√
1080/24sF	1920x1080	47.92	27.000	74.175/74.250	√	√	√
1080/50p	1920x1080	50.00	56.250	148.500	√	√	√
1080/60p	1920x1080	59.94/60.00	67.433/67.500	148.350/148.500	√	√	√

Notes:

Appendix A. Default Settings

Table A-1 lists the CinemaWall factory-default image settings. All of these settings are in the PICTURE menu except for 1:1 PIXEL MODE, which is in the POS./SIZE menu.

Table A-1. Runco Factory Default Settings for CinemaWall

Menu Setting	Models XP-50 and XP-OPAL50				Model XP-65 and XP-OPAL65			
	PICTURE MENU Setting							
	ISF Night	STANDARD	ISF DAY	MONITOR	ISF Night	STANDARD	ISF DAY	MONITOR
PICTURE	30	30	30	–	30	30	30	–
BRIGHTNESS	-5	-2	-2	0	-6	-4	-4	0
COLOR	-2	-2	-2	0	-2	-2	-2	0
TINT	0	0	0	0	0	0	0	0
SHARPNESS	3	3	3	0	5	5	5	0
COLOR TEMP	NORMAL	NORMAL	NORMAL	WARM	NORMAL	NORMAL	NORMAL	WARM
COLOR MANAGEMENT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ADVANCED SETTINGS	ON	ON	ON	OFF	ON	ON	ON	OFF
BLACK EXTENSION	0	0	0	–	0	0	0	–
INPUT LEVEL	0	0	0	–	0	0	0	–
GAMMA	2.2	S-Curve	S-Curve	–	2.2	S-Curve	S-Curve	–
AGC	OFF	OFF	OFF	–	OFF	OFF	OFF	–
R GAIN	3	3	3	–	-2	-2	-2	–
G GAIN	0	0	0	–	0	0	0	–
B GAIN	-18	-18	-18	–	-14	-14	-14	–
R OFFSET	-11	-11	-11	–	-1	-1	-1	–
G OFFSET	-7	-7	-7	–	-2	-2	-2	–
B OFFSET	0	0	0	–	0	0	0	–
1:1 Pixel Mode (POS./SIZE menu)	On	On	On	Off	On	On	On	Off

Notes:

020-0970-01 Rev. A
September 2009